

EFFECTIVE  
JULY 17,  
2024

# MSST

Manufacturing

Standards and  
Specifications for  
Textbooks

*These standards and specifications are developed by the State Instructional Material Review Association (SIMRA) in consultation with the Book Manufacturers' Institute (BMI) and publishers*

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## Definition of Textbook

The term *TEXTBOOK* as used herein shall mean printed instructional materials in bound form, the content of which is properly organized and intended for use in elementary and secondary school curricula.

These standards and specifications are subject to revision semiannually. When amendments or revisions are made, the participating organizations assume no responsibility for forwarding or giving notice to users.

## Technical Questions

Publishers or their production departments, book manufacturers, designers, printers, material suppliers, and other users of the MSST sometimes have questions as to whether the specifications of a book or the materials to be used in it conform to required standards or what a certain specification means. The MSST committee is available to give answers and interpretations.

Interpretations of these standards and specifications are included after each applicable section and as the last section of this booklet. Please refer to them if clarification is needed.

Technical questions can be submitted to

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## **Acknowledgements**

### **MSST Committee July 2024**

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## Rules and Regulations

The following describes the governing rules for permanent or supplemental adoptions, amendments, and appendices to the *Manufacturing Standards and Specifications for Textbooks*.

### Purpose

The purpose of *Manufacturing Standards and Specifications for Textbooks* is to maintain appropriate physical standards of quality and performance for elementary and secondary school printed instructional materials, which may include textbooks and related educational materials, including bound, unbound, kit or package-form, and technology-based print materials.

### Scope

These standards and specifications are intended as a guide to aid the manufacturer, the publisher, the state instructional materials review administrator, and the general public. These standards and specifications in no way preclude anyone, whether he or she has approved the standard or specification or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard or specification.

### Permanent Adoptions or Amendments

The MSST Committee may approve permanent adoption of additions to, or amendments of, these standards.

### Temporary, Supplemental Adoptions or Amendments

The MSST Committee is authorized to give interim approval of temporary, supplemental adoption of additions to, or amendments of, these standards and specifications. Temporary, supplemental adoptions or amendments shall prevail until approved for permanent adoption, or discontinued, even if in conflict with the last published *Manufacturing Standards and Specifications for Textbooks*, and such adoptions or amendments, or their discontinuance, shall be effective 30 days following action by said MSST Committee. All such adoptions or amendments shall be reviewed at each meeting of the committee with a recommendation made for permanent adoption, continuance of temporary status, or discontinuance.

In the event of any change in requirements of the *Manufacturing Standards and Specifications for Textbooks*, any directly affected inventories under contract on hand at that time may be delivered as though the change had not taken place.

### Minor Amendments, Other Than for Requirements, and Appendices

Minor technical amendments and additions of appendices for reference, correction of inadvertent errors, or clarification may be approved by The MSST Committee if they do not change the physical requirements of standards or specifications.

## Rules and Regulations

### Interpretations

Interpretations of these standards and specifications will be made by the MSST Committee, and substantive interpretations will be included in the MSST upon reprinting. A substantive interpretation is any interpretation in which the MSST Committee clarifies or interprets the MSST in writing. Substantive interpretations will be distributed to other interested parties at least every six months.

Informal requests for unofficial guidance or technical advice can be made by telephone. All requests for significant binding MSST interpretations shall be put in writing and directed to the MSST Committee. If any requesting party is aggrieved by either an oral or written interpretation given by the MSST Committee, he or she may request an appeal in accordance with the procedures outlined under “Appeals” herein. The interpretation shall be stayed pending review and until a final decision is reached.

### Procedures

All permanent specifications in MSST are adopted by the MSST Committee.

Scheduling and processing of proposals to remove, change, amend, or add a new specification shall be handled in the following manner:

1. Sixty days prior to a meeting of the MSST committee, the initiating group will forward to the MSST committee members through the MSST committee office a copy of the proposal, together with such background information as may be appropriate.
2. Thirty days thereafter, written comments shall be due back to the initiating party and the technical director.
3. The initiating party shall prepare a report for the MSST committee meeting, which will include a list of the comments and the initiating party’s response to those comments. Comments received after the thirty-day deadline will also be referred to the MSST committee.
4. The Report on Comments will be made available no later than the time of the meetings of the three individual groups the day before the MSST committee meeting.

If a proposed specification appears to be acceptable, but positive proof of its value is not available, field tests may be established, the specification may be adopted on a limited basis, or it may be adopted as a temporary, supplemental adoption.

<sup>1</sup>The unit rule, when used at an MSST committee meeting requires that, following a caucus of its appointed members, each participating association casts one vote and that a unanimous vote of the three participating groups is required to carry a motion



## Rules and Regulations

### Introducing a New Product or Method

Proposals to introduce a new product, method, or test must be submitted in writing to the MSST committee, which will make a ruling provided that the proposal has been received sixty days prior to a meeting.

The proposed new method or material must meet appropriate performance standards and be evaluated by tests already developed, such as TAPPI, ASME, ASTM, the Bureau of Standards tests, or by testing procedures developed by the proponent and approved by the MSST committee. Insofar as practicable, the new method or material should be tested in accordance with the testing procedure outlined in the MSST in the laboratory and field on actual textbooks, dummies, or books with similar characteristics.

Consideration of a new specification or a change or elimination of an existing specification is usually initiated by an interested party such as a publisher, supplier, or manufacturer. It is usually studied by the special group that is best equipped to handle it. For instance, a new type of cover material would be studied by the BMI Manufacturing and Standards Committee, which would then report to the BMI members of the MSST committee. If the BMI MSST committee members receive a favorable report, they would then see that the proposed standard is discussed and/or acted on at the MSST committee meeting. Similarly, a proposed change of margins would be referred to the publishing members of the MSST committee.

Upon compilation of the necessary test and field-use data, a recommendation should be put in the form of a new specification to be submitted to the committee for consideration. If the submission is satisfactory, it may be referred by the MSST committee to a designated committee for evaluation. If the submission is not satisfactory, the MSST committee may request additional information. After the committee completes its review, it will make its recommendation for adoption, rejection, or modification and supply a written copy to the proponent.

If the proponent is satisfied with the positive recommendation of the committee, the recommendation will be submitted to the MSST committee for action at its next scheduled meeting. If the proponent of the new method or material is aggrieved by the recommendation of the appropriate committee, he or she will have 30 days after receiving the written recommendation of the committee to appeal to the full membership of the MSST committee. If not satisfied with its ruling, the proponent can next forward his or her complaint to the Appeals Board as specified below. Alternatively, he or she may bypass the MSST committee and immediately implement the appeals procedure.

### Appeals

Complaints alleging unfair treatment under the adopted specifications, proposed specifications, interpretations, or testing, as well as allegations of substantive and procedural unfairness within the MSST committee, shall be registered in writing with the MSST committee. Such complaints shall provide specific details and report the potential effect such treatment may have on the complainant and others who may be affected, who shall also be notified by the MSST committee. An impartial ad hoc appeals board, with knowledge and expertise in the area of concern, shall be appointed by the MSST committee within 30 days. Such individuals must not have demonstrably real or apparent conflicts of interest with the subject of the appeal or the person filing the appeal.

The board may, after appropriate notice to all interested parties, solicit written and oral testimony concerning the allegations in the complaint.

Within 90 days, the appeals board will render a decision and provide copies to all interested parties.

After a final decision by the appeals board, its recommendation shall be submitted to the MSST committee for action at its next scheduled meeting.

# Standard Form Employed by States

STATE OF \_\_\_\_\_

\_\_\_\_\_  
(Department, Division, or Authority)

## MANUFACTURING STANDARDS AND SPECIFICATIONS FOR TEXTBOOKS

All textbooks offered for adoption in \_\_\_\_\_  
on and after \_\_\_\_\_, shall be manufactured in accordance with, or in excess of, these standards.  
(See Warranty, p. 6.)

One or more official samples shall be filed with bid if called for by the adopting agency; all official file samples shall be identified by a rubber stamp bearing submitting publisher's signature or an electronic signature for electronic materials to be followed by the filing of Form B in such quantities as are required by the adopting agency.

A letter or email from the publisher certifying the official signatures affixed to all copies of forms, may be filed with bid and official samples to obviate necessity of affixing original signatures to all copies.

All materials used in the manufacture of materials supplied under this adoption shall be tested in their original condition as furnished to book manufacturers and shall be subject to all trade tolerances recognized by the respective industries affected. Upon notification that their bids have been accepted, publishers may be required to file samples of materials as listed herein under "Samples for Testing by States" and to furnish to the state, when requested by it during the life of the adoption, similar adequate and complete specimens of such materials used in any subsequent printing and/or binding manufactured and delivered to the state under this adoption. Such tests shall be made upon materials in finished books as are necessary to establish that the materials are identical with materials submitted or exceed the requirements of these specifications.

These manufacturing standards and specifications for textbooks, as revised effective January 2020, shall apply to all textbooks submitted for adoption without reference to the number that may be circulated during the period of contract, provided that these standards shall not apply to subject classifications which may be specifically exempted by the adopting agency prior to the call for bids.

\_\_\_\_\_  
(Name of State Textbook Official)

\_\_\_\_\_  
(Name of State Textbook Authority)

# Form B

STATE OF \_\_\_\_\_

## STATEMENT OF PUBLISHER SUBMITTING BOOKS FOR ADOPTION

One copy of this form signed by an official of the publishing company submitting books for adoption must be attached to the inside front cover of at least one official sample textbook submitted, plus additional copies when requested by the adopting agency.

Name of Publisher: \_\_\_\_\_

Address: \_\_\_\_\_

Title offered for adoption: \_\_\_\_\_

Copyright and edition: \_\_\_\_\_ ISBN: \_\_\_\_\_

### CLASS OF TEXTBOOK:

A \_\_\_ B \_\_\_ C \_\_\_ D \_\_\_ E \_\_\_ F \_\_\_ AA \_\_\_ BB \_\_\_ CC \_\_\_      College \_\_\_ Meets MSST  
Grades 9–12 only, Class I \_\_\_ Class II \_\_\_      College \_\_\_ Meets with approved deviations (p. 9)  
College \_\_\_ Does not meet MSST

### PAPER:

Basis weight \_\_\_\_\_ lb

### PRINTING:

Printing Symbol: \_\_\_\_\_

Margins: Back: \_\_\_\_\_"    Head: \_\_\_\_\_"    Front: \_\_\_\_\_"    Foot: \_\_\_\_\_"

### BINDING:

Number of pages (total): \_\_\_\_\_    Pages per signature: \_\_\_\_\_    Bulk: \_\_\_\_\_"

Trim Size:      Width: \_\_\_\_\_"      Height: \_\_\_\_\_"      Endsheets: \_\_\_\_\_ lb

Inserts:      Number and kind: \_\_\_\_\_

Method of attachment: \_\_\_\_\_

Transparent overlays:      Number and kind: \_\_\_\_\_

Method of attachment: \_\_\_\_\_

Reinforcements:      Visible drill joints: \_\_\_\_\_      Concealed muslin joints: \_\_\_\_\_

Binding methods: Sewed: \_\_\_\_\_      Stitched: \_\_\_\_\_      Adhesive: \_\_\_\_\_

Wires: Side: \_\_\_\_\_      Saddle: \_\_\_\_\_      Mechanical: \_\_\_\_\_

Lining up: Supers: Number: \_\_\_\_\_      Headbands: \_\_\_\_\_      Tightback: \_\_\_\_\_

### COVERS:

Cover boards:      Thickness in points: \_\_\_\_\_

Cover material:      Non-woven: Type II: \_\_\_\_\_      Type III: \_\_\_\_\_

Woven fabric group designation: \_\_\_\_\_

Non-consumable softcover texts, Class AA: \_\_\_\_\_ BB: \_\_\_\_\_ CC: \_\_\_\_\_

Other: \_\_\_\_\_

Cover graphics: Lithographed: \_\_\_\_\_ Screened: \_\_\_\_\_ Stamped: \_\_\_\_\_ Other: \_\_\_\_\_

Cover top coating: \_\_\_\_\_

### SPECIAL FEATURES

The undersigned publisher submitting the textbook stated herein certifies (on the bases of tests of materials in their original conditions and in respect to the mechanical specifications employed in manufacture) that the filed sample conforms in every respect to the *Manufacturing Standards and Specifications for Textbooks* in the state of \_\_\_\_\_ with the exception of the following: (explain deviations fully below or on a separate sheet).

**Form B** (continued)

**Warranty of Publisher**

The undersigned publisher agrees, in the event the contract for supplying the textbook listed herein is awarded to it, the following:

|  |  |
|--|--|
| <p>Official sample conforms; materials supplied will conform.</p>  | <p>1. The official sample conforms to or exceeds in every particular the <i>Manufacturing Standards and Specifications for Textbooks</i> including applicable temporary, supplemental adoptions and amendments, and that all copies subsequently furnished under such contract will be identical to or the equivalent of the official sample and will likewise conform to or exceed these same specifications.</p>   |
| <p>Official sample does not conform; materials supplied will conform</p>   | <p>2. Although the official sample deviates in certain particulars delineated herein from the <i>Manufacturing Standards and Specifications for Textbooks</i> including applicable temporary, supplemental adoptions and amendments, all copies subsequently furnished under such contract will conform to or exceed every specification.</p>  |
| <p>Official sample conforms except for stated deviations; texts supplied will conform except for stated deviations</p> | <p>3. The official sample conforms or exceeds every specification of the <i>Manufacturing Standards and Specifications for Textbooks</i> including applicable temporary, supplemental adoptions and amendments,, except for those deviations expressly delineated herein, and all copies subsequently furnished under such contract will be identical to or the equivalent of the official sample and will conform to or exceed every specification of the <i>Manufacturing Standards and Specifications for Textbooks</i> including applicable temporary, supplemental adoptions and amendments, except for those expressly delineated and accepted by the adopting agency.</p> |
| <p>Official sample does not conform; texts supplied will not conform</p>   | <p>4. Neither the official sample nor copies subsequently furnished under such contract will conform to any particular specification of the <i>Manufacturing Standards and Specifications for Textbooks</i> including applicable temporary, supplemental adoptions and amendments, although all copies furnished under such contract will be identical to or the equivalent of the original sample.</p>  |

The undersigned publisher agrees to be bound under Clause One, Two, Three, and Four of this warranty. The publisher shall furnish to the state for appropriate testing, when requested, samples of materials used in this publication.

Signed \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_  
Company \_\_\_\_\_  
Date \_\_\_\_\_

## Interpretations to Form B

**Question:** *Should a Form B be filled out for a dictionary?*

**Answer:** The Form B should be filled out for a dictionary or special purpose (reference) book even though there are unavoidable deviations from *Manufacturing Standards and Specifications for Textbooks*. Lighter weight paper is permissible and is not a deviation.  
2/20/70

**Question:** *Class F books are not subject to NASTA specifications. Must Form B be filled out?*

**Answer:** Yes. Consumable softcover textbooks (specifications, p. 13) are Class F books and are subject to margins (p. 17) and use of the label (p. 18) only. Workbooks, etc. are also Class F books but are not subject to any of the published specifications. The sample submitted sets the standards for paper, margins, endsheets, cover material, sewing and stitching, etc. These should be entered in the proper places on Form B.  
7/19/71

**Question:** *The classes differ in the tables on pages 37 and 38. What class should be used in Form B?*

**Answer:** Use the capital letters only on these pages. The numbers are subdivisions within the classes such as A-1, A-2, E-1, E-2, etc.  
2/3/75

**Question:** *If softcover is used instead of a hardcover, is the deviation for cover required in Form B the only deviation which must be listed?*

**Answer:** No. All deviations must be listed.

**Question:** *A publisher used "C" or "C-1" cloth for the first printing of an adopted title. May it substitute specification grade non-woven for book cloth on reprints without filling out a new Form B?*

**Answer:** Pages 54 and 55 state that non-wovens "may be used interchangeably with cloth" and list Manufacturers Group B, C, and C-1 cloth. Interchangeability implies equivalency. Thus, they are equivalent under the wording on page three, and Form B need not be resubmitted in changing from a cloth to a non-woven.  
7/27/77

**Question:** *We have a 7½" x 9¼" book. Can we reduce the height to 9⅝" on a reprint? All MSST specifications are met.*

**Answer:** No. Your warranty states that all books supplied will be identical to or equivalent to the sample. You must get the approval of the adopting agency to make the change. Explain that you are not asking for the deviation of a specification.  
7/27/77

**Question:** *May I use a non-specification cover material for sample books? The regular edition will use specification material. The book is used in high schools.*

**Answer:** A non-specification cover material may be used for the sample submitted. Form B should be filled out noting the proper specification material on the first page with an explanation indicating the deviation on the sample. Page two of Form B should then indicate that the publisher agrees to be bound under Clause Two of the warranty to which the official sample does not conform, but texts supplied will conform to the MSST.  
7/22/85  
#141

**Question:** *Is a non-conforming tip-in a deviation that must be listed and accounted for under your Form B Warranty, i.e., a necessary disclosure for a publisher to make when bidding for the sale of textbooks?*

**Answer:** If a non-conforming tip-in were to be used in a book submitted for adoption to a state requiring bids, the deviation would have to be listed on the Form B Warranty.  
2/6/89  
#159

**Question:** *We are publishing consumable softcover texts which fall into Class F of the present published specifications—i.e., sample submitted sets specifications. If the texts supplied under contract are identical to the official sample, do we check #1 or #4 under the Warranty of Publishers for submission to the adopting state?*

**Answer:** If all copies furnished under the contract are identical to or equivalent to the original sample, check #4 under Warranty of Publisher. The checking of #1 would apply only if the official sample conformed to or exceeded in every particular in the MSST. In most cases, a Class F book, by definition, could have a completely different set of specifications than those designated under the MSST.

7/25/94  
#182

Furthermore, checking #1 might mislead the adopting state into believing that the Class F book conforms to all the listed specifications in the MSST, whereas the publisher has only followed the Warranty procedures rather than the listed specifications.

**Question:** *We are reprinting a high school textbook, and we wish to change the paper for the text and substitute a different sheet in place of the original sheet. Is it necessary to submit new samples and a new Form B if a different sheet is substituted for the original?*

**Answer:** If the new sheet conforms to or exceeds the paper specifications as outlined under “Paper Requirements-General” on page 28 of the MSST, it would be deemed equivalent to the original material and could be substituted for that material without a new Form B or new sample being submitted. On the other hand, if the new sheet does not meet all of the specifications as outlined on page 28 of the MSST, a new Form B and new samples would have to be submitted to the state.

7/24/95  
#184

**Question:** *Where can you find the manufacturing specifications for grades 9–12, and how is Form B filled out to cover this? There are no specifications for paper, board, or cover material in the MSST for high school books, except for the category “sewing and stitching.”*

**Answer:** Use the same classes for specifications that are used for elementary books, namely, A, B, C, D, E, or F. In filling out Form B, check both the Class I and Class II, as well as A, B, C, D, E, or F. It has been customary to use these classifications for both elementary and secondary school books, except if otherwise specified in the MSST.

7/28/97  
#188

# Form M

STATE OF \_\_\_\_\_

## STATEMENT OF PUBLISHER SUBMITTING ELECTRONIC MEDIA FOR ADOPTION

One copy of this form signed by an official of the publishing company submitting electronic media for adoption must be submitted to the adopting agency.

Name of Publisher: \_\_\_\_\_

Address: \_\_\_\_\_

Title of Textbook (Core Instructional Program): ): \_\_\_\_\_

Title of Electronic-based Program(if different from textbook): \_\_\_\_\_

Copyright/Version: \_\_\_\_\_ ISBN: \_\_\_\_\_

| Medium             | Industry Standard        | Contact   |
|--------------------|--------------------------|---|
| Audio Compact Disc | ANSI Standard (Red Book) | <a href="mailto:info@ansi.org">info@ansi.org</a>                                      |
| CD-ROM             | ANSI (Yellow Book)       | <a href="mailto:info@ansi.org">info@ansi.org</a>                                      |
| DVD                | DVD Forum Standard       | <a href="http://www.dvdforum.org/forum.shtml">http://www.dvdforum.org/forum.shtml</a> |
| DVD-ROM            | DVD Forum Standard       | <a href="http://www.dvdforum.org/forum.shtml">http://www.dvdforum.org/forum.shtml</a> |
| Online             | W3C Recommendations      | <a href="https://www.w3.org">https://www.w3.org</a>                                   |

### DEVIATIONS

The publisher submitting the electronic medium stated herein certifies (on the basis of tests of materials in their original conditions and in respect to the mechanical specifications employed in manufacture) that the filed sample conforms in every respect to the industry standard for that medium with the exception of the following: (explain deviations fully below or on a separate sheet).

**Form M** (continued)

**Warranty of Publisher**

The undersigned publisher agrees, in the event the contract for supplying the textbook listed herein is awarded to it that:

|  |   |
|--|---|
| <b>Official sample conforms; texts supplied will conform</b>   | <b>1. The official sample conforms to or exceeds in every particular the industry standard for the medium, and that all copies subsequently furnished under such contract will be identical to or the equivalent of the official sample and will likewise conform to or exceed these same specifications.</b>   |
| <b>Official sample does not conform; texts supplied will conform</b>   | <b>2. Although the official sample deviates in certain particulars delineated herein from the industry standard for the medium, all copies subsequently furnished under such contract will conform to or exceed every specification.</b>  |
| <b>Official sample conforms except for stated deviations; texts supplied will conform except for stated deviations</b> | <b>3. The official sample conforms to or exceeds every specification of the industry standard for the medium, except for those deviations expressly delineated herein, and all copies subsequently furnished under such contract will be identical to or the equivalent of the official sample and will conform to or exceed every specification of the <i>Manufacturing Standards and Specifications for Textbooks</i> including applicable temporary, supplemental adoptions and amendments, except for those expressly delineated and accepted by the adopting agency.</b> |
| <b>Official sample does not conform texts supplied will not conform</b>  | <b>4. Neither the official sample, nor copies subsequently furnished under such contract, will conform to any particular specification of the industry standard for the medium, although all copies furnished under such contract will be identical to or the equivalent of the original sample.</b>  |

The undersigned publisher agrees to be bound under Clause One, Two, Three, and Four of this warranty. The publisher shall furnish to the state for appropriate testing, when requested, samples of materials used in this publication.

Signed \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_  
Company \_\_\_\_\_  
Date \_\_\_\_\_



## Samples for Testing by States

On all adopted texts, publishers will be required to submit for original and subsequent testing, when either is requested, specimens\* of materials present, or to be used, in adopted text.

| Material   | Amount               | Size                      |
|--|----------------------|---------------------------|
| Text paper                                       | 10 sheets            | 12" x 12"                 |
| Insert paper                                     | 10 sheets            | 12" x 12"                 |
| Endsheets  | 10 sheets            | 12" x 12"                 |
| Reinforcements*<br>drill, muslin, or non-woven   | 1 piece              | 36" long by width of roll |
| Adhesives  | Not less than ¼ lb   |                           |
| Supers*  | 1 piece each quality | 36" long by width of roll |
| Back-lining papers                               | 10 sheets            | 12" x 12"                 |
| Sewing or stitching thread,<br>Needle, or bobbin | 200 yds. Each        |                           |
| Cover board                                      | 10 sheets            | 12" x 12"                 |
| Cover materials**                                | 1 piece              | 36" long by width of roll |
| Protective top coating                           | 1 full press sheet   |                           |

\*All materials shall be selected and sampled in accord with official testing requirements.

\*\*Cloth samples shall show selvage edges for determination of wrap direction.

## Definitions

### Consumable Textbook:

A self-contained book intended to be written in and completely consumed and which does not depend on any other textbook or material.

### Non-woven

A fibrous web, produced by bonding and/or interlocking of fibers, accomplished by mechanical, chemical, thermal, or solvent means or by a combination thereof.

**Non-wovens** include the following:

Type I—Paper: Natural cellulose fiber webs

Type II—Reinforced Paper: Polymer or resin reinforced cellulose fiber webs

Type III—Synthetic-Fiber Structure: Strands of interconnected fibers

### Teacher Edition

A teacher edition of a textbook is designated as a textbook but need not meet any requirements of *Manufacturing Standards and Specifications for Textbooks*.

### Textbook

The term *textbook* as used herein shall mean printed instructional material in bound form, the content of which is properly organized and intended for use in elementary or secondary school curricula.

### Workbook

An auxiliary book is used in connection with a pupil's textbook.

## Interpretations to Definitions

**Question:** *Are supplementary materials for a basic textbook that is bound separately as a saddle-wired pamphlet required to meet the non-consumable softcover text specifications?*

**Answer:** No. This is not a textbook under the definitions but is a workbook, "an auxiliary book used in connection with a pupil's textbook." Thus, it falls under Class F of the specifications, and its specifications are those used in the sample copy submitted for the adoption and that are also listed in Form B.  
2/11/74

**Question:** *Do workbooks or teacher's guides require the label? How does a teacher's guide differ from a teacher edition?*

**Answer:** Auxiliary books, such as workbooks, guides, or answer books, do not require the label. A teacher guide consists of materials for use by the teacher only. A teacher edition contains teaching material plus the material contained in the pupil's edition. The teaching material may be annotated or an added section to the pupil's edition.  
2/6/78  
#16

**Question:** *We have a teacher edition now bound in Tyvec (non-spec material). We would like to bind it in Kivar 6 (non-spec material). Is this allowed?*

**Answer:** A teacher edition does not have to meet MSST specifications. Therefore, the use of Kivar 6 is allowable as a cover material since the sample submitted sets the specification. However, this does represent a change in the specifications originally submitted, and you may be required by various states to submit a new Form B and sample of the teacher edition.  
7/23/84  
#133

## Designations, Class, and Specifications

### Designations

All books shall be designated as follows:

1. Hardcover textbooks
2. Non-consumable softcover texts
3. Consumable softcover texts
4. Ancillary material, workbooks, etc.

### Specifications

Specifications for each designation are as follows:

- Hardcover textbooks—All textbooks shall be bound in hard covers according to the present published specifications (Class A, B, C, D, E, I, II).
- Non-consumable softcover texts—The following categories may be soft bound and must fall into Class AA, Class BB or Class CC as described in the specifications for non-consumable softcover texts (p. 59):
  - Handwriting Books grades K–8
  - Readiness Books and Pre-Primers in Reading
  - Music and Health—grades K–12
  - Other Textbooks for Less Than One Semester’s Use, grades K–12. (See p. 16.)
- Consumable softcover texts—Class F of present published specifications—i.e., sample submitted sets specifications
- Ancillary material, workbooks, etc.—Class F of present published specifications

### Class of Textbooks

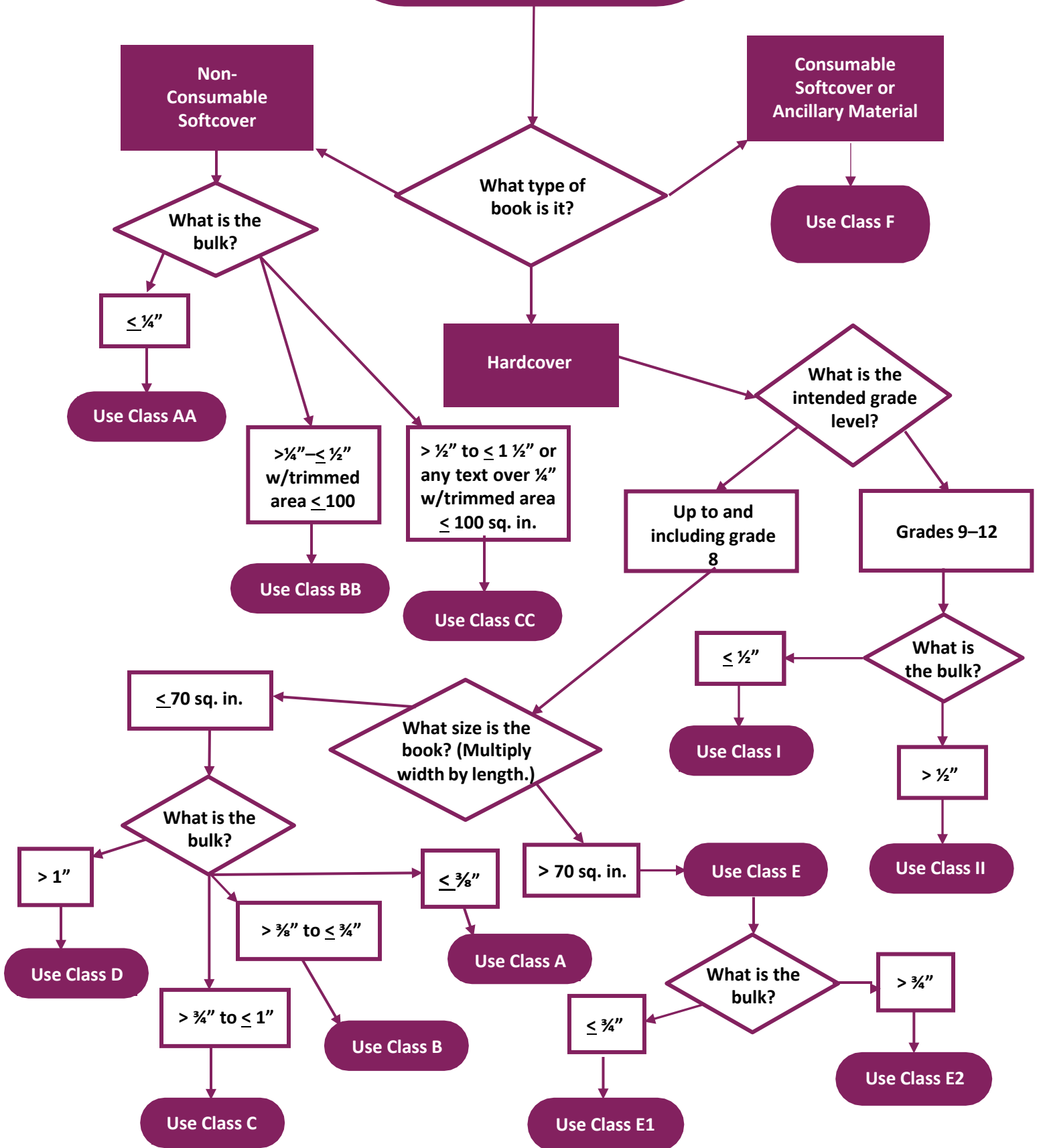
See pages 36, 37, and 38 to determine class of textbook, depending upon binding style.

### College Textbooks used in Classrooms for Grades 9–12

The MSST allows college textbooks to be used in classrooms between grades 9–12. These college books must meet one of the following categories:

- College\_\_\_\_\_Meets MSST  
This category meets all MSST specifications both structural and non-structural.
- College\_\_\_\_\_Meets with Approved Deviations  
This category meets all the structural and durability specifications but may not meet the following specifications: Print Symbol (p. 17), Bar Code (p. 17), Printing on endsheets (p. 17), Margins (p. 17), Uniform Label (p. 18), and Inserts (p. 33). Any of these deviations must be identified on Form B under deviations.
- College\_\_\_\_\_Does Not Meet MSST  
This category will not meet any of the structural specifications and may or may not meet the non-structural specifications.

# Classification Decision Tree



## Interpretations to Designations, Classifications, and Specifications

**Question:** *We have a graded series in which the handbook for each grade will be divided in sections and the individual sections bound in soft covers. Is this permissible?*

**Answer:** Yes. This is a non-consumable softcover text under designation b. on page 13 and is permitted as an exception from the hardcover specification under Specifications: b. IV on page 13. This item allows use of segmented textbooks.  
2/11/74

**Question:** *We have a textbook for one semester's use. Can it be softcover?*

**Answer:** No. It must be for less than a semester's use to be softcover.  
2/3/75

**Question:** *How does one determine whether a book is used more or less than one semester?*

**Answer:** This should be settled between the state and publisher representatives before the bid for adoption is submitted.  
2/2/76

**Question:** *Can a non-consumable softcover book (e.g., Journalism, Grade 9) be adhesive bound? Book is Class CC.*

**Answer:** Certain Class CC books may be adhesive bound. However, a 9th grade journalism book is not among the books that may be soft cover listed under Specifications: b on page 13. Your book must have a hard cover and may be adhesive bound if it falls under Class II of grades 9–12.  
7/26/76

**Question:** *Books for grades 4, 5, and 6 are now offered in two levels for each grade and are side stitched. We wish to combine the two levels for each grade. Can the combined books be side-stitched?*

**Answer:** If the combined books fall into C or D (p.37), the books may be side stitched only if permission is obtained from the adopting agency following the procedure outlined in paragraph two on page 28.  
7/27/79  
#45

**Question:** *How should a dictionary be designated to meet the requirements outlined on page ten of the MSST (August 1, 1982 Edition)?*

**Answer:** Since dictionaries serve as an aid, subsidiary, or auxiliary to textbooks, they fall under designation d (ancillary material) on page 13 (MSST 8/1/83). Therefore, they are Class F, and the sample submitted sets the specification.  
7/28/80  
#130

**Question:** *What is a semester?*

**Answer:** A semester is one of two portions of a school year in which the school year has been divided into two equal parts. It is referred to in the MSST under non-consumable softcover texts (p. 13), relating to the use of non-consumable textbooks for less than one semester's use, grades 1–12.  
7/3/84  
#136

**Question:** *We are publishing a hardbound teacher's resource book. Does it have to meet the MSST?*

**Answer:** Yes, it must meet the MSST standards as outlined in Class F, in which the sample submitted sets the specifications. A teacher's resource book is a teacher's guide for teachers only and is not used by students. It is neither a textbook nor a teacher edition of a textbook and falls into the category of ancillary or supplementary material, which is Class F of the published specifications. However, each state has the option to set its own specifications and requirements for classes of books that do not fall into the specific categories set up by the MSST.  
7/28/86  
#149

**Question:** *Is a hymnal published for use in a local church the type of book which comes within the manufacturing standards and specifications described for textbooks in the MSST?*

**Answer:** The MSST applies to textbooks, workbooks, and ancillary materials used in elementary and secondary schools. The term *textbook* refers to “printed instructional material in bound form, the content of which is properly organized and intended for use in elementary or secondary school curricula.” A hymnal published for use in a local church does not come within the scope of the MSST unless the two parties, prior to publishing, agreed to use the MSST as a standard for manufacturing. However, that would be a private agreement not subject to NASTA’s jurisdiction.

**Question:** *We have a softcover, adhesive-bound, non-consumable, first-grade reader that is part of a multivolume series of books. Does this meet the MSST?*

**Answer:** Readers must be hardcover textbooks, and non-consumable softcover texts would not meet specifications. However, if the reader is to be used for less than one semester, the book would meet the MSST specification, since this category of books is allowed to be softcover under the specifications outlined on page 13, item IV, for non-consumable, softcover texts.

**Question:** *We have decided to turn a consumable worktext (Class F) into a hardcover text to be offered as gratis one per classroom. As I understand it, even though they are gratis offerings and not one per student, they will need to meet MSST. Is this accurate?*

**Answer:** Yes, the hardcover book is subject to the MSST specifications. The process requires a publisher to submit Form B which provides for the product to be accepted by the state.

**Question:** *We are planning to produce a set of four to six softcover texts per grade level, which will replace the traditional hardbound basal textbook that we have used in the past. Each individual softcover text in each set will contain instructional material that will be used for less than one semester. Please let us know if this product meets SIMRA specifications as a softcover text.*

**Answer:** Yes. This is considered a segmented textbook and may be bound as a non-consumable soft cover text under Specifications: b. IV, Other Textbooks for Less Than One Semester’s Use, Grades K–12 (p. 13, MSST).

## Printing Requirements: General

### Copyright Page

The copyright page shall show the copyright notice as required by law and be located on the title page or page immediately following. The full ISBN and the printing symbol identifying the particular impression and the year printed shall be printed on the same page as the copyright notice. This applies to all textbooks, ancillary materials, and workbooks.

### Format and Content of Printing Symbol

Printings shall be identified numerically. The year printed shall be identified by use of the last two digits of the year. A space shall be left between the printing digits and the year-printed digits. The publishers may, at their discretion, use that space to identify the printer.

EXAMPLE: 1 2 3 4 5 6 7 8 9 10 XXX 18 17 16 15 14 13  
Printing Year Printed

### Bar Code

A Bookland EAN Bar Code including the 5-digit add-on, the “greater than” (>) symbol, and the full ISBN shall be printed on the back cover. (See back cover of MSST binder for example of a bar code.)

### Endsheets

No instructional material shall be printed on any page of endsheets or on either inside cover of softcover texts unless reproduced elsewhere in the book. Decorative designs may be used, and certain technical data printed solely to comply with government requirements or publishing conventions shall be exempted, insofar as these are not conceived as part of a curriculum. These include the following or similar items:

|                         |                             |            |                       |
|-------------------------|-----------------------------|------------|-----------------------|
| “Do not photocopy”      | List of publisher’s offices | Dedication | Ownership record form |
| “Permission is granted” | Acknowledgements            | Credits    |                       |

### Margins

The marginal measurements given are subject to normal variation due to the limitations of mechanical equipment. Tolerance for back margins of plus or minus  $\frac{1}{16}$ " shall be a normal variation.

#### Side-Stitched Titles

Back margin not less than  $\frac{3}{4}$ ", measured from sewing or stitching to text page; head  $\frac{3}{8}$ "; front  $\frac{1}{2}$ "; foot  $\frac{5}{8}$ ".

#### Smyth sewn and saddle-stitched titles

Back margin not less than  $\frac{5}{8}$ ", measured from gutter fold to text page; head  $\frac{3}{8}$ "; front  $\frac{1}{2}$ "; foot  $\frac{5}{8}$ ".

#### Adhesive-bound titles

Back margin not less than  $\frac{3}{4}$ ", measured from sewing or stitching to text page; head  $\frac{3}{8}$ "; front  $\frac{1}{2}$ "; foot  $\frac{5}{8}$ ".

#### Books bound with the binding edge at the head

The text page shall have the following minimum margins:

- Head (binding edge):
  - stitched titles,  $\frac{3}{4}$ " measured from sewing or stitching to text page
  - Smyth type sewn and saddle-stitched titles,  $\frac{5}{8}$ " measured from fold to text page
  - side (either edge),  $\frac{1}{2}$ "; foot  $\frac{5}{8}$ "

## Comment

Marginal notes, foot folios, line numerals, extended side heads, maps and bleed-type illustrations, and captions (legends) are not considered part of text page; but no less than ¼" net margins are permitted on any except bleed-type illustrations. Any illustrative treatment not in accordance with the above must be shown in file sample and specifically referred to in publisher's statement (Form B).

## Quality

All forms are to be carefully made ready and pages aligned and registered. The presswork of the text, the illustrations and the inks used, and other details are to conform to the high quality accepted as a standard by the craft.

## Ownership Record Form (Uniform Label)

State ownership record form shall be printed or affixed as a printed label on the inside front cover of all non-consumable textbooks and shall be a facsimile copy of the uniform label illustrated below.

## Requirements

Label must be printed in black ink and placed on the inside front cover of the book and may be printed or attached with a permanent adhesive. Labels shall be no larger than 4<sup>5</sup>/<sub>8</sub>" X 6<sup>1</sup>/<sub>4</sub>" including instructions at the foot of the label. When the trim size of the book is equal to or smaller than the label, the label including margins may be proportionately reduced in size according to the size of the book, provided legibility is maintained. In extreme cases when a book is unusually small, several of the dotted entry lines may be eliminated. Consumable textbooks may have not fewer than two dotted entry lines.

---

THIS BOOK IS THE PROPERTY OF:

|                       |   |                      |
|-----------------------|---|----------------------|
| STATE _____           | Book No. _____  |                      |
| PROVINCE _____        | Enter information in spaces to<br>the left as instructed. |                      |
| COUNTY _____          |   |                      |
| PARISH _____          |   |                      |
| SCHOOL DISTRICT _____ |   |                      |
| OTHER _____           |   |                      |
| ISSUED TO             | Year Used   | CONDITION            |
|                       |   | ISSUED      RETURNED |



## Interpretations to Printing Requirements: Endsheets

**Question:** *Must material from the text of a book that is used on an endsheet be identical in all respects with the material in the text?*

**Answer:** There is no requirement in *Manufacturing Standards and Specifications for Textbooks* requiring that material in the text of the book be identical in all respects when it is also used in the endsheet. Thus, material shown in four colors in the text could be shown in two colors on the endsheet. The sole requirement is that if there is instructional material on the endsheet, it must be also reproduced in the text of the book.

**Question:** *Maps will be printed on the endpaper of a history text. They do not appear in the text of the book. Is this instructional material?*

**Answer:** If the maps are referred to in the text of the book, they are instructional material and must appear in the text as well as on the endsheet. If they are not referred to in the text, they are decorative rather than instructional material and need not be repeated in the text.

**Question:** *What is the definition of instructional material?*

**Answer:** In the context of the MSST, instructional material shall mean any printed material in a textbook intended for use in an elementary or secondary school curriculum.

**Question:** *We are publishing a McCain-stitched elhi book. The glossary at the end of the book runs a page longer than the planned number of pages. May we print this page on the first page of the back endpaper?*

**Answer:** The last page of the glossary may not be printed on the endpaper and still conform with the MSST. The requirements for endpaper (p. 17, MSST) state that no instructional material shall be printed on any page of the endsheets unless reproduced elsewhere in the book. The last page of the glossary is instructional material that is not reproduced elsewhere in the book. Therefore, it cannot be printed on the endpaper.

**Question:** *We are publishing a consumable softcover text. There is instructional material on the inside back cover. Does it need to be duplicated in the body of the book?*

**Answer:** Yes. Instructional material printed on the inside back cover must be reproduced in the text of a consumable book. A consumable textbook is a self-contained textbook intended to be written in and completely consumed (p. 13, MSST). Although it does not have to meet the Printing, Paper, Binding, and Cover specifications for hardcover and non-consumable textbooks, it does have to meet the label and margin specifications of textbooks, as well as other non-material requirements.

**Question:** *Could a table that is reproduced on the endpaper of a textbook be used if it was printed in parts throughout the book rather than in its entirety in one location in the book?*

**Answer:** Instructional material may only be printed on the endpaper if it is reproduced in the book. There is nothing in MSST that precludes this material from being printed in parts throughout the text if these separated sections make up the entire table.

**Question:** *We have printed and bound a stitched book that has material on page iii of the front endpaper that should be removed. Is it permissible to remove this leaf?*

**Answer:** No. A book must have normal endpapers.

**Question:** *May you have promotional or marketing content on any of the endpapers of a student edition and still meet MSST/NASTA specifications?*

**Answer:** No. Promotional/marketing content does not fall into the category of acceptable endsheet items (p. 19). Inclusion of such material would be considered a deviation.  
10/15/08  
#212

**Question:** *We have a website that we want to direct students to and aid them in their studies. May a decorative endpaper direct them to the website and include a PIN code to access the website? Could this be construed as content if the website instructions also appeared in the book?*

**Answer:** The use of endsheets as described in your inquiry does not fit the current MSST criteria (p. 19 of MSST). While the MSST is silent on book block content, it is fairly direct in defining and limiting that information permissible on endsheets. So, inclusion of materials as described by your inquiry is considered a deviation. (See Form B instructions on how to address a deviation should you elect to pursue.)  
10/30/08  
#213

## Interpretations to Printing Requirements: Margins

**Question:** *What are the margins required for pictorial material (e.g., pen and ink sketch with caption)?*

**Answer:** Pictorial material or sketches with captions may appear in the margin up to ¼" from the trimmed edge.  
2/2/70

**Question:** *What constitutes a marginal note; design, content, or placement? Can a marginal note appear ¼" from the gutter fold (back margin) or ¼" from the outside edge (front margin)?*

**Answer:** A marginal note is determined by placement. It is any text or design that is completely or partially printed within the text margin of a page or extends from the body of the text page into the margin area. As a marginal note, it may extend up to ¼" from the gutter fold or stitching, or ¼" from the trim area of the head, foot, or front of a page except for bleed-type illustrations.  
7/27/98  
#193

**Question:** *May text type of a book of teaching illustrations which consists of a few paragraphs per page be treated as captions or legends, and print up to ¼" from the end of the page?*

**Answer:** No. The text page of a book must meet the margins given on page 17 of the MSST.  
2/2/72

**Question:** *May the printed matter in illustrations, such as latitude numbers and names in maps, box headings in pictorial charts, and so forth, print up to ¼" from the end of the page?*

**Answer:** Yes. The margin specifications state "no less than ¼" net margins." They also state that maps are not a part of the text page. Such items as latitude numbers, place names, etc. are integral parts of a map.  
2/2/72

**Question:** *What inside margin is required from text to perforation of a tear-out page? We plan to use ¾".*

**Answer:** There is no specification for such a margin. Since the margin from text to stitch in a sidestitched book is ¾", your margin is adequate.  
2/2/72

**Question:** *May the key letters at the head of a dictionary page be considered marginal notes and stick up into the head margin?*

**Answer:** Yes.  
7/23/72

**Question:** *Is it OK for a running foot to be included in the foot margin of a page?*

**Answer:** Yes.  
7/28/75

- Question:** *Is the index of a casebound McCain-stitched book required to meet text margins on page 17?*
- Answer:** Yes.  
2/2/76
- Question:** *Some side-stitched books are sewn in the round. Back margins of thick books are appreciably less at the center of the book than at the front and back. Is this OK?*
- Answer:** Yes, provided the smallest inside margin at the center is no less than  $\frac{3}{4}$ ".  
7/25/77
- Question:** *What are the margin requirements for a workbook? Must they meet the specifications given on page 17?*
- Answer:** Workbooks are not required to meet specifications. (See page seven—Interpretations to Form B—dated 7/19/71.)  
2/6/78
- Question:** *On page 17 of the MSST, only foot folios are allowed to fall in the margin. Is it OK to have a head folio in the margin as long as a net margin of  $\frac{1}{4}$ " remains?*
- Answer:** Yes.  
10/2/79  
#108
- Question:** *Should the bottom margin be measured from the base line or from the bottom of the descender?*
- Answer:** Measure from the base line.  
2/4/80  
#113
- Question:** *We are planning to publish a consumable softcover elementary textbook which will contain questions or problems with rules on which the pupil is expected to write his answers. My question concerns those write-on lines and whether they might extend beyond the text block proper and into the margin, so long as they are kept at least  $\frac{1}{4}$ " from the trim edge.*
- Answer:** On page seven of the MSST (Question 7/19/71), a ruling is provided that consumable texts, although Class F, are subject to the margin requirements stated on pages 17 and 59. Since these original margin specifications were set up, there have been many technological changes in printing and binding equipment as well as in the publisher's product. At present there is little danger that any material will be trimmed if a minimum margin of  $\frac{1}{4}$ " is allowed. Your question is well stated, and we rule that in consumable texts student write-on lines may extend to within  $\frac{1}{4}$ " of the trim of the page.  
7/26/82
- Question:** *We are publishing a book with a logo in the head margin in which the student fills in his name. Is this permissible if the net head margin to the logo is not less than  $\frac{1}{4}$ "?*
- Answer:** Yes. The logo would fall into the same category as marginal notes, illustrations and captions, which are not considered part of the text pages. However, the MSST does require a net margin of at least  $\frac{1}{4}$ ".  
7/28/86  
#147
- Question:** *We are publishing a softcover, consumable, adhesive-bound text. What are the minimum back margins that should apply?*
- Answer:** Consumable softcover texts fall into Class F of the present published specifications (in which the sample sets the specifications) but are subject to the margin specifications (pp. 17) and the use of the label (p. 18) as designated in the MSST.  
2/2/87  
#150
- For adhesive-bound, consumable, softcover texts, the back-margin specifications should not be less than  $\frac{5}{8}$ ". This information is listed under specifications for non-consumable softcover texts (p. 13) but should be used for consumable texts as well.

**Question:** *What are the minimum allowable front margins for a junior high school McCain-sewn book for the following two situations:*

1. *For a recurring title or side head printed within an outside tab?*
2. *For marginal notes appearing within the outside front margin?*

**Answer:** Regarding a recurring label or side head which appears within a tab on the front margin of a junior high school book, this side head is not considered part of the text page. As a consequence, a minimum of  $\frac{1}{4}$ " net margin is permitted for the recurring head.

2/5/90  
#164

Regarding the marginal notes, which appear in glossary form within the outside front margin of the pages of this book, these marginal notes are not considered part of the text page. As a result, a  $\frac{1}{4}$ " minimum net margin is permitted here as well.

**Question:**

1. *What are the margins on non-bleed illustrations in reference to all three trim edges as well as the back margin?*
2. *Must bleed-type illustrations on a side-stitched book extend beyond the stitching or may they end at the stitching?*

**Answer:** 1. Non-bleed illustrations are not considered a part of the text page and may be printed within the margin area on all sides of the text page, but no less than  $\frac{1}{4}$ " net margin is permitted on any except bleed-type illustrations.

2/3/90  
#170

2. Bleed-type illustrations on a side-stitched book may end at the stitching. There is no requirement for them to extend into the gutter beyond the stitching.

**Question:** *Are running heads part of the text page?*

**Answer:** No. Running heads are not part of the text page and, as such, are not subject to the regular margin specifications but cannot be less than  $\frac{1}{4}$ " from the trim. They should be treated the same as foot folios, line numerals, and extended side heads.

7/28/97  
#190

**Question:** *We are producing a book with the foot folio  $\frac{1}{4}$ " from the trim at the bottom of the page. In so doing, we have a variation of plus or minus  $\frac{1}{16}$ " due to normal variation of the press equipment. The MSST allows for such a variation of the back margin but is silent regarding the other margins of the page. Would the variation be allowed on the foot margin as well as the back margin?*

**Answer:** Yes. A variation of plus or minus  $\frac{1}{16}$ " for foot folios would be allowed within the intent of the original wording of the section on margins, since all margins—back, front, head, and foot—are subject to the same normal variations of a sheet or web folder.

7/27/98  
#191

## **Interpretations to Printing Requirements: Bar Code**

**Question:** *Is a bar code and ISBN required on the back cover of all books or is this at the option of the publisher?*

**Answer:** A Bookland EAN bar code and full ISBN must be printed on the back cover. This specification is effective with all revisions and new editions carrying a 1993-or-later copyright.

2/3/92  
#171

**Question:** *Is the Bookland EAN bar code required on ancillary materials?*

**Answer:** No. The specification requiring a Bookland EAN bar code to be printed on the back cover on all new editions or revisions carrying a 1993-or-later copyright is optional on ancillary material and workbooks. Since ancillary material falls into Class F of the present published specifications, whereby the sample submitted sets the specification, it is at the option of the publisher as to whether it wanted to print a bar code on the back cover of the book.

7/27/92  
#172

**Question:** *Can I put the EAN barcode on the front cover of a spiral-bound teachers guide?*

**Answer:** Per the definition of teacher editions, teacher guides do not need to meet any requirements of the MSST. Based on that, an EAN is not required, nor would a teacher edition need to follow the EAN placement rules in the MSST. The location of the EAN is the publisher's choice. In making that decision, EAN-industry-standard placement guidelines should be consulted. The BISG guidelines can be found at [www.BISG.org](http://www.BISG.org).

9/19/18  
#218

BISG Standard (5/15/2014)—When printed, the Bookland EAN symbol is to be positioned at the bottom of Cover 4 (the back cover or jacket). The ISBN, preceded by the letters ISBN, is to appear in human-readable form and 9 point or larger font above the barcode.

The Bookland EAN symbol may also appear on Cover 2 (inside front cover) of mass-market paperback books to be used by retailers and/or distributors for returns processing.

## Interpretations to Printing Requirements: Miscellaneous

**Question:** *Do the specifications permit setting text material ragged right?*

**Answer:** There is no specification covering this. Either ragged right or justified complies.

2/2/71

**Question:** *What specifications govern type-size, length-of-line, or typographic format?*

**Answer:** Except for margins, there are none.

7/25/71

**Question:** *We wish to use a dark brown ink for printing the text of a schoolbook. Is this permitted under the specs?*

**Answer:** Yes. There is no specification for the color of ink of the text of a book.

2/2/73

**Question:** *Are folios required on all pages or can they be omitted on some pages? If omission is permissible, what is the maximum that may be omitted?*

**Answer:** There are no specifications on folios except for margins where foot folios are not considered part of the text page. The number omitted is entirely at the discretion of the publisher.

7/23/73

**Question:** *Are there any specifications for the width between columns of a two-column book?*

**Answer:** No. It is up to the publisher's discretion (7/25/75).

**Question:** *Must a book be printed and bound in the US to satisfy the MSST?*

**Answer:** No. There is no requirement in the MSST that indicates a book must be printed and bound in the US.

2/14/94

#180

**Question:** *What are the MSST specs on perforations?*

**Answer:** The MSST is silent on perforations, as perforations would only be in Class F ancillary material for which specs are defined by the product.

9/18/18

#220

## Interpretations to Printing Requirements: Copyright Page

**Question:** *Is it acceptable to put the copyright information on the inside front cover of a non-consumable pupil's edition, below the state label?*

**Answer:** It is accepted that the copyright page is positioned within the book block and contains that information outlined on page 17 of the MSST. This includes ISBN and printing symbol information, which are instructional as well as required. Therefore, while such information could be on the endsheet (inside front cover), it must also be reproduced elsewhere in the book. This would seem to negate the desire to place the copyright on the cover. Some examples of what is not considered part of the curriculum are listed on page 17 of the MSST.

**Question:** *Must a publisher submit all books under a contract with the same printing symbol on the copyright page to satisfy the publisher's warranty to supply books identical to the official sample?*

**Answer:** No. A publisher is required to supply the most recent printing of an edition, which must be identical to or the equivalent of the official sample submitted with the warranty. The printing symbol identifies the specific printing. The ISBN printed on the copyright page protects the users from not receiving the same edition originally adopted throughout the period of the contract, unless otherwise agreed to between the state and the publisher.

**Question:** *Is there a restriction or guideline as to the preferred location of copyright material in pupil textbooks?*

**Answer:** The copyright page (and pertinent information defined on page 17 of MSST) shall be located either as part of the title page or the page immediately following the title page on all textbooks, ancillary material, and workbooks. See page 13 of the MSST for further definition.

## Interpretations to Printing Requirements: Uniform Label

**Question:** *Does a paper-bound consumable textbook require a label?*

**Answer:** No.

7/25/71

**Question:** *Is a label required in a teacher's manual for an audio-visual filmstrip?*

**Answer:** No.

7/25/71

**Question:** *We are planning to use two entry lines for all labels in consumable texts and reduce the height of the label by the seven lines saved. Is this OK?*

**Answer:** Yes. Two lines are acceptable for consumable texts. The height of the label may be reduced by the seven lines saved so that the label will be 4 $\frac{1}{2}$ " x 4".

7/26/72

**Question:** *May a colored endsheet be used on which to print the uniform label?*

**Answer:** Yes. The label must be printed in black ink, but no specification has been set up for the color of the endsheet paper. The specification "Color: White" on page 28 applies to text paper only.

7/23/73

**Question:** *Does "facsimile" in the label definition mean that we may use a different typeface or format, provided all material in the label is set forth in the same order and type-size used in the label on page 18?*

**Answer:** No. It must be an exact facsimile, a photographic copy.

7/23/73

**Question:** *Can the state label be pasted on the inside cover as a label or must it be the size of the full endsheet?*

**Answer:** It may be pasted on as a label if the entire reverse side of the label is solidly attached and the label is no larger than 4 $\frac{5}{8}$ " x 6 $\frac{1}{4}$ ". It cannot be tipped on at an edge or at the corners.  
2/2/76

**Question:** *In a basal reading program, consumable readers K through 8 are each used two or three weeks (less than a semester). These books are the basic texts of the program. Must each of the several books used per semester contain the uniform label?*

**Answer:** Yes.  
2/2/76

**Question:** *Each book of a series of softcover texts is printed in different colored text type. Can the label be printed in the same color ink as the text?*

**Answer:** No. The label must be in black ink. Request deviation in Form B. Note that use of black ink requires printing the cover in two colors rather than one.  
7/25/77

**Question:** *We are publishing a non-consumable text with a trim size of 5 $\frac{3}{4}$ " x 6 $\frac{1}{2}$ ". May we reduce the size of the label by deleting some lines or as a reduction in size from its regular size of 4 $\frac{5}{8}$ " x 6 $\frac{1}{4}$ " so that we can print a copyright notice on the inside front cover with the label?*

**Answer:** The Uniform State Label may not be reduced in size or have any lines deleted unless the trim size of the book is equal to or smaller than the label. Since the trim size of the book is larger than the size of the label, the label may not be reduced inside or have entry lines eliminated.  
2/3/92  
#169

**Question:** *Do teacher editions still require a state label?*

**Answer:** No. In 1996, the requirement to include the Uniform State Label (USL) in teacher editions was eliminated from the MSST.  
7/23/01

**Question:** *We are revising a college dictionary for use in high school. At present there is text on the inside front cover, which raises the following questions regarding the placement of the label:*

1. *Is it a requirement that the uniform label be printed on the inside front cover?*
2. *Can a uniform label be affixed to the front endsheet?*
3. *Can a self-adhesive label be provided to the purchaser to allow him to place the label where he would prefer in order to keep the information provided on the inside cover intact?*

**Answer:**

1. No. A dictionary is an auxiliary book and falls under the classification "4. Ancillary material" (p. 13). Therefore, dictionaries are classified as Class F, in which the sample submitted sets the specifications. Ancillary materials, workbooks, etc., do not require the uniform label.
2. Yes. If a publisher chooses to affix a label to the front endsheet of an ancillary book, it is free to do so, but it is not required.
3. Yes. A self-adhesive label can be placed on the front endsheet of an ancillary book, but the entire reverse side of the label must be solidly attached. The purchaser may place this on page two or three of the front endpaper of this book at his option in order to keep the information provided on the inside front cover intact. Theoretically, he may place it anywhere in the book since the sample sets the specification, but we would suggest that it be confined to page two or three of the endsheet so that the label would be as close as possible to its traditional placement for ease of location in the schools.

7/22/91  
#168

**Question:** *We want to print the endpapers of the pupil's edition of a textbook in two colors; the end-sheets printed in a PMS color and the USL background as a tint of the PMS color. The uniform state label would be printing in black. Is that permissible?*

**Answer:** There is no restriction on the use of a PMS color for endpaper if the uniform state label is printed in black. There is also no restriction in use of a tint of the PMS color as the background color of the USL, but we would suggest that it be light enough not to interfere with the handwriting that would appear on the label.

**Question:** *We are manufacturing Classes AA, BB and CC non-consumable textbooks. Is the state label required on the inside of the front cover? Further, can the label be overprinted onto a design such as an overall screened-down pattern?*

**Answer:** The state label is required on the inside front cover of non-consumable textbooks, Classes AA, BB and CC. The label must be printed in black ink. However, it may be overprinted onto a design such as an overall screened or tint pattern in any color. Care must be taken, nonetheless, that the overall pattern is light enough that it does not interfere with the legibility of the names of the students written on the label.



# Paper Requirements

## General

All papers, groundwood and free sheet, shall meet the specifications after artificial aging conditioning of 24 hours in a dry oven at 100°C. Where the word *TAPPI* is used in these specifications with accompanying symbols, it refers to the Standards and Measurements established by the Technical Association of the Pulp and Paper Industry.

## Color

White

## Gloss

Maximum gloss for all papers used for self-illustrated text (This specification does not refer to paper used for inserts.)

Using TAPPI T-480—Max. 33

## Grain

Grain of all papers may run in either direction regardless of the printing process used, except for adhesive-bound books, on which the grain shall run parallel to the binding edge of the book.

## Opacity

All papers, when tested according to TAPPI T-425, shall conform to these requirements:

| Basis Weight   | Opacity                  |
|----------------|--------------------------|
| 40 to 49 lb    | Not less than 90 percent |
| 50 to 59 lb    | Not less than 90 percent |
| 60 lb and over | Not less than 92 percent |

## Permanence

The artificial aging condition described above applies to all papers.

## Strength

All papers:

| Tearing Strength (Elemendorf) TAPPI T-414 |                             | Bursting Strength (Mullen) TAPPI T-403 |                                     |
|---|-----------------------------|--|-------------------------------------|
| Basis Weight                              | Min. Ave. in Each Direction | Basis Weight                           | Bursting Strength                   |
| 40 to 49 lb                               | 25.2                        | 40 to 49 lb                            | Not less than 16 lb per square inch |
| 50 to 59 lb                               | 30                          | 55 to 64 lb                            | Not less than 17 lb per square inch |
| 60 lb and over                            | 35                          | 65 lb and over                         | Not less than 18 lb per square inch |

## Tolerance

Particular variation in the bursting strength, tearing strength, color, and opacity requirements are permitted to meet the production needs of unusual titles, provided the file sample and Form B statement show variations and these variations are accepted by adopting agency. These paper-aging requirements apply to all paper materials including endsheets and covers.

## Paper Weight by Class of Text

### Basis Weight of Book Paper Determined on 25" X 38"—500 sheet ream count

#### Tolerance—Bulk Measurements (Exclusive of covers and endsheets):

A tolerance of  $\frac{1}{16}$ " in bulk of book, either below or in excess of prescribed bulks in Class A through Class E is permitted to allow for commercial variation in paper making and processing.

#### Tolerance—Text Paper Weight

Less than minimum weights specified may be used for titles, which, because of peculiar bulk, page content, or type of printing or binding, require adjustment of paper weight, provided such variations are shown in file sample and fully explained in statement filed with bid.

Paper Requirements—Paper Weight by Class of Text

|          | <b>Bulk Measurements</b><br>Class Exclusive of Cover and Endsheets  | <b>Paper Weight</b>  |                                       |
|----------|---|--|---------------------------------------|
|          |   | Elementary (Grades K–8)  | Secondary School (High School)        |
| <b>A</b> | All texts, exclusive of Class E, up to and including $\frac{3}{8}$ " bulk and having a trimmed area of less than 70 square inches                   | Minimum basis:<br>50 lb for texts, grades K–8  | Minimum basis:<br>50 lb for all texts |
| <b>B</b> | All texts, exclusive of Class E, over $\frac{3}{8}$ " up to and including $\frac{3}{4}$ " bulk and having a trimmed area less than 70 square inches | Minimum basis:<br>50 lb for texts in grades K–2<br>40 lb for texts in grades 3–8   | Minimum basis:<br>40 lb for all texts |
| <b>C</b> | All texts, exclusive of Class E, over $\frac{3}{4}$ " up to and including 1" bulk and having a trimmed area less than 70 square inches              | Minimum basis:<br>50 lb for texts in grades K–2<br>40 lb for texts in grades 3–8   | Minimum basis:<br>40 lb for all texts |
| <b>D</b> | All texts, exclusive of Class E, over 1" in bulk and having a trimmed area less than 70 square inches   | Minimum basis:<br>40 lb for all texts  | Minimum basis:<br>40 lb for all texts |
| <b>E</b> | All texts, having a trimmed area of 70 square inches or more  | Minimum basis:<br>50 lb for text in grades K–8 and all texts up to and including $\frac{3}{8}$ " bulk<br><br>40 lb for texts in grades 3–8 (if over $\frac{3}{8}$ " in bulk)   | Minimum basis:<br>40 lb for all texts |
| <b>F</b> | Pamphlets, workbooks, etc.<br><br>According to sample.  | Suitable minimum-weight book, writing tablet, or drawing stock, of proper finish for use intended and not subject to paper specifications<br><br>Workbooks, writing, and drawing books shall be equipped with covers of quality and weight to withstand usage; binding style must ensure durability throughout period of use |                                       |

## Interpretations to Paper Requirements

### Color

**Question:** *May colored paper be used as text paper?*

**Answer:** No. Text paper must be a shade of white.  
2/2/72

**Question:** *1. We have 32 pages of printed matter that we wish to stand out from the rest of the book. May we print this on colored paper?  
2. If we cannot use colored paper, may we print an overall tint on the page and overprint this with the black text type?*

**Answer:** 1. No. White paper must be used.  
7/23/73  
2. Yes. There are no specifications on color of inks or method, or type of illustration used.

**Question:** *We are planning to publish a program of segmented non-consumable softcover texts. The back section of each student book is a compendium of reference material and is to be printed on buff paper so it will stand out from the white lesson pages. Can buff paper be considered a "shade of white"? Or, to comply with MSST, must we print an overall tint on white paper to achieve the same effect?*

**Answer:** Buff paper is not necessarily a "shade of white" but may be a color in itself.  
2/14/94  
#178  
Words are often inadequate as descriptions of color. Your purpose in using the buff is to have it stand out from the white pages, and, as such, it could hardly be a shade of white where the difference in color would be marginal. Therefore, you should print an overall tint on the white paper to better achieve the effect that you desire and still conform to the white paper requirement.

### Gloss

**Question:** *We have 32 pages of illustrations that should be printed on higher gloss paper than the text to reproduce properly. May we use gloss paper and heavier ream weight?*

**Answer:** Yes, to both questions. Gloss specs do not apply to paper used for illustrations that are bound in as inserts or as a separate signature. Weights given are minimums. Use of heavier weights than those specified is permissible.  
2/2/72

### Grain

**Question:** *What specifications apply to the directions of the grain of the paper on web and sheet-fed offset presses?*

**Answer:** There is no specification for grain direction of any offset print book. Web offset or sheet-fed offset books may be printed either way of the grain, except for adhesive-bound books.  
2/2/70

**Question:** *Can a 60-lb offset paper be run cross grain?*

**Answer:** Any offset job can be run either way of the grain.  
7/25/70

- Question:**
1. "Opacity" is specified as "not less than x percent" for a given basis weight of paper. Does this limit apply to individual test points, the average for a reel (unit of production off the paper machine), or the average for a production order?
  2. "Tearing Strength" is specified as "minimum average in each direction" for a given basis weight of paper. How do you define "minimum average in each direction"?
  3. "Bursting Strength" is specified as "not less than x points" for a given basis weight of paper. As in question 1, does this limit apply to individual test points, the reel average, or the order average?

- Answers:**
- 7/26/99  
#195
1. "Opacity" is specified as "not less than x percent" for a given basis weight of paper. This would be the average figure for a production order, understanding that the test specimens should include at least five representative samples of a lot of paper.
  2. "Tearing Strength" is specified as "minimum average in each direction" for a given basis weight of paper. The average reading of the tear strength should be the average of the ten representative samples selected for each principal grain direction of the paper, and that minimum average applies to both the MD and CD test results of a production order.
  3. "Bursting Strength" is specified as "not less than x points" for a given basis weight of paper. Just as in items 1 and 2, the average figure applies to a production order. For this, twenty representative samples are required.
- The guidelines of TAPPI T400 should be followed in sampling and accepting a lot of paper for all the above tests.

**Question:** *Does the use of recycled paper in a textbook conform to the MSST?*

**Answer:** Paper used in a textbook must meet the standards and tests listed on page 28 of the MSST. Whether the paper is manufactured from recycled fibers is immaterial if it meets the above-mentioned standards.

7/26/99  
#196

**Question:** *If a text paper meets all the individual characteristics and attributes as required by SIMRA, but the basis weight is lower than specified, is this paper acceptable to be used in approved textbooks?*

**Answer:** No. Basis weight of text paper is a prime identifier and measure for acceptance in MSST (p. 29, Form B, etc.). A tolerance guide (p. 28) is provided for certain products such as dictionary or special-purpose (reference) book. However, paper, as described in your inquiry, for textbooks would be a deviation.

3/5/07  
#210

**Question:** *A couple of printers have been talking to me about a 40-lb sheet that has "some" groundwood in it. Does this meet MSST specs?*

**Answer:** MSST specifications do not preclude the use of ground wood fiber in paper. The requirement for any paper is that the paper must meet or exceed the specifications for the paper listed in the MSST.

3/2/11  
#216

## Tolerance

**Question:** *We have a high school dictionary which must be printed on 33-lb paper to avoid excessive bulk. Is this permissible?*

**Answer:** Yes. This is permitted as stated in the 3rd paragraph of page 28. Explain in Form B (p. 5) that to maintain reasonable bulk and because of the nature of the book (reference), 33-lb paper has been used as permitted on page 28. This is not a deviation from specifications.

2/2/72

## Paper Weight by Class of Text

**Question:** *Class F books are not subject to paper specifications set forth for Class A–E books. What paper may be used?*

**Answer:** There are no specifications for paper used in Class F books. The sample submitted becomes the specified paper.  
7/23/71

**Question:** *65-lb paper proposed for a Class B textbook is less than 92 percent but over 90 percent in opacity. 45-lb paper with 90 percent opacity is permitted. Can the 65-lb paper be used?*

**Answer:** No. 65-lb paper must be 92 percent opacity.  
7/23/71

## Interpretations to Paper Requirements: Specifications for Pre-Elementary Books

**Question:** *What weight paper should be used in a reading-readiness book for kindergarten which is included in the non-consumable softcover text category?*

**Answer:** 50 lb No weight is given in the specs for K books. 50 lb is required for grades 1 and 2 and no weight reduction is permitted until grade 3. This indicates that no paper lighter than that accepted for grades 1 and 2 should be used.  
7/23/72

**Question:** *Do the MSST specifications for grade 1 apply to books for kindergarten?*

**Answer:** On February 2, 1973, this question was addressed, and the response was that the MSST standards for hardbound books start with grade 1 except for cover board and cover cloth where the specs for Class A read “all texts . . . up to and including first grade.” However, readiness books and pre-primers in reading, which are used in either kindergarten or grade 1, are covered by the non-consumable softcover text specs (Item II).  
2/2/73  
Revised  
8/15/12  
#217

Upon recent review, publishers have evolved to manufacturing books for kindergarten to the same MSST specifications that exist for grade 1 products. Therefore, the earlier interpretation is being modified to state that MSST specifications apply to all products grades K–8.

**Question:** *We are publishing a bilingual kindergarten system which will consist of picture cards, flannel board patterns, storybooks, etc. All material will be used by the teacher and not the pupils. Is this system required to meet MSST?*

**Answer:** Yes. However, this is ancillary material and the sample submitted sets the specification (Class F). Because this question relates to “a kindergarten system consisting of picture cards, flannel board patterns, storybooks, etc.,” and because we believe that the material in question (picture cards, flannel board patterns, storybooks, etc.) does not fall under the purpose and scope of MSST as outlined on page 1 of MSST, we recommend that this program not be covered by MSST.  
2/2/81  
#125

## Binding Requirements: General

### Adhesives

Adhesives used in all operations of book binding shall be capable of forming an adequate bond between the surfaces to be joined. The adhesive shall be of such quality that the bonded areas cannot be separated without damage to the bonded surfaces. The specific type of adhesive to be used is to be determined by the book manufacturer.

### Case-Lining Material

Case-lining material used in the covers of books cased-in “tight-back” or “tubular liner” shall have a bursting strength (Mullen TAPPI T-403) of not less than 45 points per square inch.

### Casing-in and Drying

**All side-stitched books** shall be cased in tight-back.

**All side-stitched square-back books** shall be cased in and pressed in such a manner as to ensure tight-back and smooth joints.

**All Smyth sewn books** must be glued tightly in the joint and may be cased in either loose-back, tight-back, or tubular-liner.

**Squares on all covers** shall be not less than ⅛" on all three sides of book, and such squares shall be maintained with as much uniformity possible under existing mechanical conditions.

**Adequate pressing and drying** shall be given all books, regardless of casing and pressing processes employed.

### Cover Board

See page 47.

### Endsheets

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#### Endsheets (including fly leaves)

| <b>Basis Size, Weight, and Ream Count</b><br>(not less than) | <b>Bursting Strength</b><br>(Mullen) TAPPI T-403 | <b>Folding Endurance</b><br>(MIT) TAPPI T-511<br>(not less than) | <b>Opacity</b><br>T-425       |
|--|--|--|-------------------------------|
| 25" x 38"—80 lb<br>per 500 sheets                            | Not less than 40 points                          | 120 md/75 cd   | Not less than<br>92.5 percent |

**No instructional material** shall be printed on any page of endsheets or on either inside cover of softcover texts unless reproduced elsewhere in the book. Decorative designs may be used, and certain technical data printed solely to comply with government requirements or publishing convention shall be exempted, insofar as these are not conceived as part of a curriculum. These include the following or similar items:

---

|                         |                             |            |
|-------------------------|-----------------------------|------------|
| “Do not photocopy”      | List of publisher’s offices | Dedication |
| “Permission is granted” | Acknowledgements            | Credits    |
| Ownership record form   |                             |            |

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### Headbands

See Lining-up and Headbanding, page 33.

## Non-Correctional Inserts

### Side-stitched books

Single non-correctional inserts shall be inserted to the fold of the signatures so that they are sewn or stitched in by the thread. Double-page non-correctional inserts (four-page sections), maps, or fold-out inserts shall be mounted on strong bond, ledger, or similar paper (or muslin) guards inserted to the fold of the signature so the guard is sewn or stitched in by the thread. The fold of the insert shall be free of the thread. Double-page non-correctional inserts, maps, etc. may also be stitched in as integral units of the book.

### Smyth sewn books

If a signature has one non-correctional single insert, the insert may be tipped in. If a signature has more than one non-correctional single insert, each shall be  $\frac{1}{4}$ " wider than the signature and shall be inserted so that the  $\frac{1}{4}$ " stub is tipped around the signature (or portion thereof) at the fold and sewn in by the thread. Double-page non-correctional inserts (four-page sections), maps, or fold-out inserts shall be mounted on strong bond, ledger, or similar paper (or muslin) guards which shall be tipped around the signature section so that they are sewn in by the thread. Double-page non-correctional inserts, maps, etc. may be inserted or wrapped around the signature so that they are sewn in as integral parts of the signature. Such four-page non-correctional sections may also be sewn in separately. Double-jacketed non-correctional inserts (eight-page sections) may be inserted into or wrapped around signatures so that they are sewn in as units of the book, sewn in as signatures, or used in accordance with any other standard book practice.

### Hardcover adhesive-bound books

Non-correctional inserts are permitted if printed on similar paper as that used for the text and must be bound into the text so that the overall strength of the book is not diminished in any way.

**Inserts consisting of transparent overlays** of one or more sheets fastened to a base sheet by wire, adhesive, or heat sealing shall be securely mounted on a strong bond, ledger, or similar paper (or muslin) guards, with guards tipped around the signature section. Wire shall be tinned.

## Correctional Inserts

Except by agreement between the publisher and the adopting agency, not more than three inserts for correctional purposes shall be permitted. Each correctional insert shall be tipped on the stub of the leaf it replaces and be printed on similar paper as the leaf it is replacing

## Lining-Up and Headbanding

**Headbands are optional** on all Smyth sewn books and side-stitched books.

**All Smyth sewn books** shall be lined-up with one super extending over both joints of the book and on to each cover board not less than 1" (and not less than  $\frac{1}{4}$ " beyond the edge of the concealed muslin joints); this super shall be of tape style and shall have 40 warp and 16 filling threads per square inch and a tensile strength of not less than 36 lb warp and 9 lb filling.

**A tolerance for any super** in thread count above or below the specifications of not more than one thread in each direction per square inch is permitted.

**Tensile strength** of all supers shall be determined by the strip method. (See Test Conditions, Samples and Procedures, page 75.)

There must be two applications of adhesive when one super is used.

**All supers** must be applied with the greater number of (warp) threads across the backbone of the book, and the single or both the double supers must extend to within  $\frac{1}{2}$ " of the head and tail of the book.

**Back lining** is required only when headbands are used. Back-lining material shall be of suitable weight and quality, applied over headbands, and extend to within 1/8" of head-and tail-trimmed edges of book and entirely across the back- bone of the book and shall have a bursting strength (Mullen test) of not less than 45 points per square inch (TAPPI T-403).

### Reinforcements

**Side-stitched books:** Endsheets shall be reinforced with white or harmonizing color of bleached drill or twill. Reinforcements must be exposed not concealed with warp threads parallel to backbone of book, with these specifications:

| *Class of Book   | Threads per Inch |      | Stripping Weight<br>Oz Per Square Yard | Tensile Strength<br>(Strip Method) |       |
|--|------------------|------|--|------------------------------------|-------|
|  | Warp             | Fill |  | Warp                               | Fill  |
| A, B, C, & D up to & including 1 1/4" & Class E up to & including 1" in bulk | 68               | 35   | 5.3 oz                                 | 80 lb                              | 70 lb |
| D over 1 1/4" & Class E over 1" in bulk                                      | 68               | 35   | 7.3 oz                                 | 100 lb                             | 90 lb |

### \*\*Smyth sewn books

Endsheets shall be reinforced with cotton cloth (joint muslin), extending around first and last signatures, and after casing-in to extend on cover boards at least 5/8"; having thread count not less than warp 66, filling 56 threads per inch; tensile strength (strip method) not less than warp 45 lb, filling 20 lb. This reinforcement shall be concealed.

### Rounding and Backing

**Rounding and backing with suitable joints** is required on all Smyth sewn and all adhesive-bound hardcover books.

**Side-thread or wire-stitched books** may be either rounded and backed or unbacked (with square back). Board must be set off from joints or back to permit full opening.

### Sewing and Stitching

See pages 36–38.

### Hardcover Adhesive Binding

See page 57

\*See page 36.

\*\*If lightweight paper is used under Tolerance, page 27, an exception may be made to this specification permitting different material or method of reinforcement.



## Signature

The maximum number of pages per signature for Smyth sewn or side-stitched books, other than 16 pages, shall be governed by the following table:

| Pages per Inch | Max Paper Caliper | No. of Pages per Signature |
|----------------|-------------------|----------------------------|
| 400            | 0.005 inch        | 32                         |
| 500            | 0.004 inch        | 40                         |
| 666            | 0.003 inch        | 48                         |
| 800            | 0.0025 inch       | 64                         |

All folding shall be performed in such a manner as to prevent wrinkles and gussets.

## Super

See page 33.

## Threads

See Sewing and Stitching, page 36.

## Tolerances on Bulk Measurements (exclusive of covers and endsheets)

A tolerance of  $\frac{1}{16}$ " in bulk either below or in excess of prescribed bulks in classes A through E is permitted to allow for commercial variation in processing.

## Binding Requirements: Sewing and Stitching

### Determining the Class of a Book

1. Determine square inch trimmed area of book block without cover (height x width).

Example:  $7\frac{1}{2} \times 9\frac{3}{4} = 69.375$  sq in.

2. Determine bulk, exclusive of cover.
3. Determine grade level (1–12).

### **\*Classes A, B, and E1 (see following page)**

Elementary texts may be bound by the Smyth sewn method, according to prescribed specifications, only upon written authorization of the adopting agency.

Written authorization of the adopting agency shall be in the following form: The Form B shall include the following statement in explanation of a deviation: "Smyth sewn method has been utilized as an alternate method permitted by the MSST." Written acceptance of a bid is to be considered sufficient authorization.

### **\*\*Classes C and D (see following page)**

Elementary texts may be bound by the drill-and-stitch method, according to prescribed specifications, only upon written authorization of the adopting agency.

Written authorization of the adopting agency shall be in the following form: The Form B shall include the following statement in explanation of a deviation: "The drill-and-stitch method has been utilized as an alternate method permitted by the MSST." Written acceptance of a bid is to be considered sufficient authorization.

### **Adhesive-Bound Hardcover Textbooks (see following page)**

See page 57 for definition and classification for hardcover adhesive-bound textbooks. Hardcover adhesive binding may be used for **all Class II secondary level textbooks** and in **elementary textbooks** where Smyth sewing is allowed (Class C, D, and E2) in the following disciplines up to and including a maximum of 1 ½ " in bulk **only**:

Languages other than English

Social Studies

## Binding Requirements: Sewing and Stitching

| Binding Requirements                          |  |  |
|---|--|--|
| Class   | Bulk Measurements<br>Exclusive of Covers and Endsheets   | Sewing or Stitching  |
| <b>Elementary (Grades K–8)</b>                |  |  |
| A   | All elementary texts, exclusive of Class E, up to and including $\frac{3}{8}$ " bulk and having a trimmed area of less than 70 square inches                   | Side-thread stitched<br><br>See note * preceding page.   |
| B   | All elementary texts, exclusive of Class E, over $\frac{3}{8}$ " up to and including $\frac{3}{4}$ " bulk and having a trimmed area less than 70 square inches | Side-thread stitched by drill-and-stitch method<br><br>Side thread stitched without drilling, up to and including $\frac{5}{8}$ " bulk<br>See note * preceding page. |
| C   | All elementary texts, exclusive of Class E, over $\frac{3}{4}$ " bulk up to and including 1" bulk and having a trimmed area less than 70 square Inches         | Smyth sewn<br><br>See note ** preceding page.  |
| D   | All elementary texts, exclusive of Class E, over 1" in bulk and having a trimmed area less than 70 square Inches   | Smyth sewn<br><br>See note ** preceding page.  |
| E   | All elementary texts having a trimmed area of 70 square inches or more, whether bound on long or short dimension   |  |
| 1   | Books up to and including $\frac{3}{4}$ " bulk   | Side thread stitched by drill-and-stitch method<br>See note * preceding page.  |
| 2   | Books over $\frac{3}{4}$ " bulk  | Side thread stitched by drill-and-stitch method or Smyth type sewn at the discretion of the publisher  |
| F   | Pamphlets, workbooks, etc..  | According to sample.   |
| <b>Secondary School (Grades 9 through 12)</b> |  |  |
| I   | Any secondary school text less than $\frac{1}{2}$ " in bulk  | Side-thread stitched   |
| II  | Any secondary school text $\frac{1}{2}$ " in bulk or over  | Side-thread stitched, Smyth sewn, or adhesive-bound at the discretion of the publisher (Adhesive-bound not to exceed 1 $\frac{1}{2}$ " in bulk, see p. 55)           |

Note: If a proposed binding style is not identified in the MSST, it is not an approved bind style for any product other than Class F.

## Music Books

Music books may be Smyth sewn for grades 7 and 8.

| Type of binding                  | Threads |                   |        |                   |                          |                   |                |                    |
|----------------------------------|---------|-------------------|--------|-------------------|--------------------------|-------------------|----------------|--------------------|
|                                  | Cotton  |                   | Nylon* |                   | Cotton-Covered Polyester |                   | Linen          |                    |
|                                  | Size    | Breaking Strength | Size   | Breaking Strength | Size                     | Breaking Strength | Size           | Breaking Strength  |
| <b>Smyth Sewing</b>              |         |                   |        |                   |                          |                   |                |                    |
| Regular                          | 36/4    | 3.4 lb            | 33     | 4.0 lb            | 50                       | 4.2 lb            | —              | —                  |
| Light Papers**                   | 50/4    | 2.5 lb            | 23     | 3.0 lb            | 100                      | 2.6 lb.           | —              | —                  |
| <b>Side-Stitched</b>             |         |                   |        |                   |                          |                   |                |                    |
| Bobbins                          | 10/4    | 11.0 lb           | 99     | 14.0 lb           | 16                       | 13.0 lb           | 25/3           | 11.0 lb            |
| Needles                          | 10/5    | 14.0 lb           | 99     | 14.0 lb           | 12                       | 14.9 lb           | 25/3           | 14.0 lb            |
| <b>Side-Stitched McCain Type</b> |         |                   |        |                   |                          |                   |                |                    |
|                                  | 8/6     | 25.0 lb           | 207    | 25.0 lb           |                          | 25.0 lb           | 19.5/5<br>20/5 | 25.0 lb<br>25.0 lb |

\*All side stitching machines using nylon thread must be equipped with tension adjustment devices to compensate for resiliency and smoothness of nylon thread and adhesive attachments for sealing thread to book after stitching.

\*\*To be used when thickness and finish of paper together with signature and book content, by standard practice, require a thinner thread.

### Smyth Sewing, Stitches

Signatures shall have as many stitches as the machine can employ. Stitches must come within 1" of the head and must come as near the tail as the machine allows. Minimum distance between stitches (open space on side of signature where no thread is visible) shall be not more than 1".

### Wire

All wire must be tinned wherever employed, including side-stitched and saddle-wired books or pamphlets.

### Side Stitched

The number of stitches is up to the discretion of the bindery. Stitches should be maximized to ensure proper durability.

## Interpretations to Binding Requirements: Sewing and Stitching

**Question:** *What are the thread specifications for the automatic McCain-type stitching?*

**Answer:** Either 8/6 cotton, 19½/5 or 20/5 linen, or equivalent nylon or cotton-covered polyester thread may be used for McCain side stitching, and each shall have a minimum tensile strength of not less than 25 lb when tested by the single strand method.

**Question:** *Are there greater maximums (regarding thread) for Class E textbooks than other classes?*

**Answer:** Class E books have the same thread requirements as other classes requiring side thread stitching.

- Question:** *Can a Moffett stitcher be used for side-stitched books?*
- Answer:** Yes. The Moffett stitcher is composed of a standard Singer stitcher head with a drill attachment added. Thus, the net result is equivalent to McCain stitching. There are two types of stitchers used on side-stitched books. The Singer and Moffett use two threads and operate with a needle and a bobbin. The McCain uses a single thread with a chain stitch. Thread used on the Singer and Moffett must test not less than 14 lb for the needle and 1 lb for the bobbin. Thread used on the McCain must test not less than 25 lb. Side-stitched books up to  $\frac{3}{4}$ " produced on both the Moffett and the McCain are acceptable under the *Manufacturing Standards and Specifications for Textbooks*. Books up to and including  $\frac{5}{8}$ " bulk produced on the Singer machine are also acceptable.
- 7/27/70
- Question:** *We have a H.S. book over 70 square inches with  $\frac{3}{4}$ " bulk. Page 36 gives only two classes for H.S. books, Class I and Class II. Is this book a Class II book or is it Class E (70 square inches)? How should it be listed in Form B?*
- Answer:** Page 36 applies to sewing and stitching only. The book is a Class E book but is also a Class II book regarding sewing and stitching. Form B item "Class of Textbook" should be checked "E." On the second line of item "Sewing and Stitching," check "II."
- 7/29/74
- Question:** *May a textbook which is not graded but is used in grades 7 through 12 be Smyth sewn?*
- Answer:** Yes. Since it is over 70 square inches in area and  $\frac{13}{16}$ " in bulk, it becomes a Class E book for grades 7 and 8 and a Class II book for grades 9 through 12. Page 37, first item, permits Class E to be Smyth sewn as an alternate method. Class II books may be Smyth sewn or sidestitched.
- 2/3/75
- Question:** *Can a  $\frac{1}{2}$ " book be wired only?*
- Answer:** No. One-half-inch side-stitched books come under Class B, page 39, and must be side thread stitched with or without wires.
- 2/3/75
- Question:** *We have published English books for grades 1, 2, 3, 7, 8, and 9. Bulk is  $\frac{5}{8}$ ". May these books be Smyth sewn?*
- Answer:** Yes, if the requirements of paragraph one, page 36, are met. You must have written authorization in accordance with the instructions of paragraph two, page 36, of MSST.
- 7/28/80  
#119
- Question:** *A thread company is offering us a polyester rayon cotton coated thread for use in Smyth sewn books. Does this thread meet MSST requirements?*
- Answer:** The thread company must warrant that this thread meets the standards for coated thread stated on page 36. If these standards are met, the thread may be used. However, the MSST committee should be notified, test results presented, and a request to include this thread in the table on page 36 (1982 edition MSST) made.
- 2/7/83  
#129
- Question:** *We are using size 10/4 cotton thread on the bobbin and size 10/5 cotton thread on the needle of a side stitcher for side-sewn books up to  $\frac{5}{8}$ " as prescribed in the MSST (p. 38). We would like to use a size 8/6 cotton thread for the needle and a size 10/4 cotton thread for the bobbin for greater productivity and strength. Is this permissible?*
- Answer:** Yes. This is permissible. Using materials that are better and stronger than the specifications list is always permitted, provided that the materials are machine workable. The MSST provides minimum specifications for textbooks, and they may be exceeded if the manufacturer or publisher so desires.
- 7/27/87  
#152

**Question:** *Does the use of the Moffett Side Stitcher conform to the MSST Specifications for side-stitched books?*

**Answer:** The Moffett Side Stitcher is one of the standard side-sewing machines in use for the production of side-sewn El-Hi books. It covers, along with the McCain Stitcher, that category of books referred to in the MSST as side-thread stitched by the drill-and-stitch method. Both the McCain and Moffett have drill attachments for use on thicker books.

2/4/91  
#165

The Moffett Side Stitcher may be used for Class A, B, and E up to and including  $\frac{3}{4}$ " bulk, as well as secondary school books up to and including a maximum of  $\frac{3}{4}$ " in bulk.

## Interpretations to Paper Requirements: Specifications for Pre-Elementary Books

**Question:** *Do the MSST specifications for grade 1 apply to books for kindergarten?*

**Answer:** On February 2, 1973, this question was addressed, and the response was that the MSST standards for hardbound books start with grade 1 except for cover board and cover cloth where the specs for Class A read "all texts . . . up to and including first grade." However, Readiness books and pre-primers in reading, which are used in either kindergarten or grade 1, are covered by the non-consumable softcover text specs (Item II).

2/2/73  
Revised  
8/15/12  
#217

Upon recent review, publishers have evolved to manufacturing books for kindergarten to the same MSST specifications that exist for grade 1 products. Therefore, the earlier interpretation is being modified to state that MSST specifications apply to all products grades K-8.

**Question:** *We are publishing a bilingual kindergarten system which will consist of picture cards, flannel board patterns, storybooks, etc. All material will be used by the teacher and not the pupils. Is this system required to meet MSST?*

**Answer:** Yes; however, this is ancillary material and the sample submitted sets the specification (Class F) because this question relates to "a kindergarten system consisting of picture cards, flannel board patterns, storybooks, etc.," and because we believe that the material in question (picture cards, flannel board patterns, storybooks, etc.) does not fall under the purpose and scope of the MSST as outlined on page 1 of the MSST, we recommend that this program not be covered by the MSST.

2/2/81  
#125

## Interpretations to Binding Requirements: Case-Lining Material

**Question:** *Can cover board be used as a case lining?*

**Answer:** There is nothing in *Manufacturing Standards and Specifications for Textbooks* that forbids use of a cover board as a case lining provided it has a Mullen bursting strength of 45 points per sq in.

7/23/70

**Question:** *We are publishing a grade 1, McCain-sewn textbook having 64 pages, 8" x 10" trim size with a bulk less than  $\frac{1}{4}$ ". May we bind it using a stiff board back?*

**Answer:** The MSST does not prohibit the use of board as a case-lining material. It specifies that "Case-lining material used in the covers of books cased in tight-back . . . shall have a bursting strength (Mullen TAPPI T-403) of not less than 45 points per square inch" (p. 32). If the board has such a bursting strength, it is acceptable.

2/3/86  
#146

## Interpretations to Binding Requirements: Endsheets

**Question:** *Can stitched book endleaves be gathered on as two separate sheets, or must they be pasted together at the back edge as produced by the Brackett stripping machine?*

**Answer:** They may be gathered on. Pasting the sheets together is for manufacturing convenience only and has no effect once the books are wired and/or stitched.  
7/23/70

**Question:** *Is it permissible to use endsheets over 80 lb per ream?*

**Answer:** Yes, if Bursting Strength and Folding Endurance Specifications are met.  
7/24/71

**Question:** *On a side-stitched book that must meet MSST specifications, may a single reinforced sheet be used instead of the double sheet or four-page visibly reinforced endpaper?*

**Answer:** The MSST is silent on whether the endpapers on a side-stitched book must be manufactured with a single sheet or a four-page endsheet. However, the inferences contained in the MSST support the use of a four-page endpaper. For example, there is a folding endurance test forendpaper. (See page 33.) Folding endurance would have significance only for a four-page endsheet. Furthermore, there is an interpretation printed in the MSST on the gathering of the endsheets on a side-stitched book that directly describes the endleaves as two sheets (see page 33).  
2/6/84  
#140

Based on the inferences and the general practice used in the industry of using four-page endsheets for side-stitched books almost without exception, we would conclude that visibly reinforced four-page endsheets must be used in side-stitched books meeting MSST specifications.

**Question:** *May a table of instructional material contained in the text be pasted on page two of the back endsheet of a side-sewn hardbound textbook?*

*In this instance, instructional material will already be present on the back endsheet (page three). Therefore, page two will be pasted on, and page three printed on. Page one will be blank, and page four is pasted to the cover.*

**Answer:** Yes. The table referred to in your question may be pasted, as long as the entire reverse side is solidly attached to the endsheet. The instructional material printed on the endsheets must be reproduced elsewhere in the book, although not necessarily in one place.  
7/28/97  
#187

**Question:** *We would like to attach a pocket to the endpaper of a textbook for holding a CD-ROM. Is this allowable under the MSST?*

**Answer:** No. Although the MSST is silent on this particular feature in a textbook, the intent of the specifications would disallow its use for the following reasons:  
7/27/98  
#194

- No instructional material shall be printed or attached on any page of the endsheets
  - unless reproduced elsewhere in the book.
- By attaching the disc to the endpaper, the disc becomes an integral part of the textbook, but because of its nature, it has to be removed from the book to be used. This subjects it to being lost or damaged, which is contrary to the very reason for the binding specifications, which try to permanently incorporate all instructional materials within the covers of the book.

Note: Exception to this requires the publisher to list it as a deviation to MSST and must be stated as such in Form B.

**Question:** *We have a Class E, foreign language textbook that bulks over ¾". Does the MSST permit adhesive-binding for this book?*

**Answer:** Yes, provided written authorization of the adopting agency is obtained. (See page 36.)  
7/24/00 While side thread stitched is the stated preferred method, Smyth-type sewn is also  
#200 permitted with qualifications. And, adhesive binding is an acceptable substitute for Smyth sewn up to 1½" bulk for your particular classification.

**Question:** *We have a Class B, Spanish edition, reading textbook. May we adhesive bind as a foreign language discipline?*

**Answer:** No. In this case, the primary discipline (reading) sets the binding requirements. Foreign  
7/24/00 language covers those textbooks intended to teach a specific language, e.g., French.  
#201

## Interpretations to Binding Requirements: Inserts for Side-Stitched Books

**Question:** *Each correctional insert in a side-stitched book is to be tipped to the stub of the leaf it replaces. Does this apply to double-page inserts or only to single inserts?*

**Answer:** It applies to both.  
2/24/72

**Question:** *We have published a side-sewn book in which we want to correct four consecutive sheets totaling eight pages. May this be done, and if so, how are they to be attached?*

**Answer:** Not more than three inserts for correctional purposes are permitted in a side-sewn book  
7/27/87 except by agreement between the publisher and the adopting agency (p. 33). If permission is  
#151 granted by the adopting agency for the replacement of eight pages, each of the four inserts shall be tipped to the stub of the leaf it replaces. It may also be handled as two consecutive double-page inserts, each of which is tipped to the stub of the pages that were replaced and be printed on similar paper as the leaf it is replacing.

## Interpretations to Binding Requirements: Inserts for Smyth Sewn Books

**Question:** *Must a four-page insert be mounted on a guard tipped around the signature in all cases?*

**Answer:** Yes, if bound in as an insert. However, a four-page can be bound in as a signature that is "sewed  
7/23/70 or stitched in as an integral unit of the book."

**Question:** *In a Smyth sewn book on 50-lb paper, there will be 64 pages of insert material on 60-lb paper. If:*

- 1. four-page will appear between 32s, must it be guarded?*
- 2. four-page is inserted between pages 16 and 17 of a 32-page signature, must it be guarded?*
- 3. eight-page wraps around a 32-page signature, must it be guarded?*

**Answer:** 1. The four-page can be sewed into the book as a four-page signature; otherwise it must be  
2/2/71 mounted on a guard and tipped around one of the 32s.  
2. If the sewing thread comes between pages two and three of the insert, no guard is needed.  
3. No guard is needed.

**Question:** *No provision is made for correctional inserts in Smyth sewn books. Are they permitted?*

**Answer:** Yes. The specs state that if there is only one single insert in a signature, it may be tipped in. If  
2/3/72 there is more than one single insert per signature, it must be guarded (sewn in). A correctional insert which is mounted on the stub of the page it replaces is mounted on a page which goes around the signature, and thus is sewn in.



- Question:** *May a divider sheet of colored stock heavier than the text paper be tipped in between the text and the index of a Smyth sewn book?*
- Answer:** Yes, if it is the only insert in that signature. If there are one or more other inserts in the signature, all, including the divider, must be self-guarded by tipping around the signature.  
2/3/72
- Question:** *Must a double-page spread on 70-lb paper, which is inserted into the center of a signature and sewed in, be reinforced with a guard at the center fold?*
- Answer:** No. A guard is required only if the four-page double spread cannot be sewn into the book unless it is tipped on a guard that, in turn, is sewed in.  
2/11/74
- Question:** *We wish to use a 6½" x 9¼" 16-page insert sewed into a 7½" x 9¼" book. Is this permissible?*
- Answer:** Yes. If any text matter is included in the insert, it must meet the margin requirements on page 17.  
7/29/74
- Question:** *Does page 34 require all single inserts to be self-guarded?*
- Answer:** No. Any one that is the only insert in the signature in which it is placed can be tipped in.  
7/28/75
- Question:** *If a Smyth-type sewn book over 1¼" in bulk has a single-page insert tipped in on the second page of a signature and, if in the process of the tip-in, the volume separates between the end of the preceding signature and the signature of the tip-in to such an extent as to expose the spine over ½" of the height thereof, causing a crease in the back of the cover, would such comply with industry standards and/or with the MSST?*
- Answer:** The situation that you describe implies that the insertion of a tip has caused a split in the back of the book between signatures. Without physically examining a number of books, we cannot determine whether the split was caused by the tip-in or other manufacturing problems, and even if we could, it would be a judgment decision and not a scientific one. As far as a book with a split conforming to the MSST, there are no performance standards in these specifications. They are, for the most part, methods of manufacturing and material specifications, and a book with a split might or might not still conform to the MSST. There is no published group of industry performance standards for book manufacturing, but poor workmanship is generally recognized by knowledgeable publishers and manufacturers.  
2/6/89  
#160
- Question:** *We are publishing a Class E, Smyth sewn 8" x 10" textbook and would like to add a gatefold that would be an extension of the back endpapers, pages five and six. Instructional material would be printed across the spread consisting of the foldout of the flyleaf, page six and page seven. The printed material would be repeated in the text of the book. Copy would also be positioned on flyleaf five and the reverse of the foldout to encourage the student to unfold the gatefold. Is this design allowed by the MSST?*
- Answer:** A gatefold of this type is allowed as an extension of the back endpaper on a Smyth sewn, Class E textbook. The endpaper would have to be reinforced as indicated on page 34 of the MSST. Instructional material would also be allowed to be printed across the spread of the foldout since you indicated that this would be repeated in the text of the book. A gatefold of this type would have no adverse effect on the strength of the binding. The endpaper and Smyth sewing would have to be in conformity with the other requirements of the MSST. Copy on flyleaf five to explain the use of the gatefold would be allowed.  
7/24/89  
#163

**Question:** *We are publishing a book in which a separate 16-page section will be bound at the end of a side sewn, Class E, casebound edition of a textbook. It will follow the index of the book, it is not included in the pagination, and it falls outside of the instructional plan. May this section be considered an insert and be handled in the printing and binding as such under the MSST?*

**Answer:** Yes. A 16-page section isolated from the rest of the book and not part of the organized instructional text material contained in the book would be an insert. Normally an insert contains illustrated material, maps, or charts which are printed separately from the regular text of the book and, by this definition, your treatment of the section would make it an insert. It would not really matter whether the insert was paginated, but by its location and content, it could not be ruled as an integral part of the instructional text material and, consequently, would fall into the insert category.

7/22/91  
#167

As an insert in a side-sewn book, it should extend to the back of the book and be sewn in by thread. Regular back margins should be used of not less than  $\frac{3}{4}$ ", measured from the sewing to the text page.

There is no problem with the gloss exceeding the maximum specification since this gloss specification does not apply to inserts.

**Question:** *Should unmilled, adhesive-bound signatures carry the same maximum number of pages per signature as Smyth sewn or side-stitched books, as noted on page 35 of the MSST?*

**Answer:** Yes, provided the manufacturer can meet the specific binding requirements as outlined in the Specifications for Hardcover Adhesive-Bound Books of the MSST.

7/24/00  
#198

## Interpretations to Binding Requirements: Inserts for Transparent Overlays

**Question:** *Are fold-out inserts prohibited?*

**Answer:** *Manufacturing Standards Specifications for Textbooks* do not prohibit use of a fold-out insert. As you described the fold-out, it is the basis sheet of a transparent insert. The specifications require that it be fastened to the transparent sheets by wire, adhesive, or heat sealing and that the entire insert be mounted on a guard which wraps around the signature section.

7/25/70

**Question:** *1. Must transparent inserts be pre-stapled or stitched?  
2. Can they be tipped in?  
3. Do they require a cambric backing?*

**Answer:** 1. The transparent sheets must be fastened to the base sheet by wire staples, adhesive, or heat seal.  
2. The unit cannot be tipped in but shall be mounted on a strong paper or cloth guard which, in turn, shall be tipped around the signature.  
3. The wire-stapled units you propose to use mounted on a cambric wrapped around the fold of the signature meet requirements.

2/2/71

**Question:** *May a transparent insert be placed within a signature or must the guard go around the outside of the signature?*

**Answer:** It may go anywhere provided the guard on which it is mounted is tipped around the fourpages of the signature to which the guard will be attached. This assures the guard being sewnin. Placing a transparent insert within a signature requires handwork and is costlier than placing it on the outside.

2/3/72

- Question:** *Must a transparent insert in a McCain side-stitched book be tipped around the signature?*
- Answer:** No. There is no specification requiring any insert—single, double, or transparent—to be tipped around the signature in a side-stitched book. Tipping around applies to Smyth sewn books only.  
7/29/74
- Question:** *We presently have a transparent insert in a high school textbook consisting of a one-fold base sheet wrapped around and glued to three plastic sheets. This insert is tipped and guarded to an adjacent 32-page signature. We want to substitute for it a transparent insert in which the one-fold base sheet is severed into two separate sheets and the plastic pages and base sheets are heat-sealed to each other. The entire transparent overlay is then tipped and guarded to an adjacent 32-page signature as before. Is this method of manufacturing permitted, and how is the substitute transparent insert handled under the MSST with the state agency?*
- Answer:** Heat sealing of the plastic sheets on a transparent overlay to the base sheet is permitted under the MSST, but severing the base sheet into two separate sheets would reduce its strength and would not be permitted. Tipping and guarding the transparent insert to an adjacent signature is a proper method of securing it and is acceptable. If the method of binding a transparent insert is changed to a substitute, acceptable method after a book has been adopted, all that is required is that a new Form B be filled out indicating the binding change under “transparent overlays” and a new official sample book be submitted to the state adopting agency.  
7/25/88  
#157

## Interpretations to Binding Requirements: Reinforcements

- Question:** *Can the muslin reinforcement on a Smyth sewn book be exposed as in a library binding?*
- Answer:** No.  
7/23/71
- Question:** *Can a concealed joint be used in a side-stitched book?*
- Answer:** No.  
7/23/71
- Question:** *On page 34 of the MSST, under Reinforcements, is the stripped weight for Drill defined as the weight of the product applied to the book by the manufacturer?*
- Answer:** Stripped weight, in this instance, defines drill material at the time of application. In other words, that material received by the bindery to be stripped to another material (i.e., endsheets).  
6/14/02  
#204
- Question:** *Is it permissible to use a polyester drill cloth instead of cotton, and, if so, what are the specifications?*
- Answer:** The question you ask has not come up before; therefore, it has not been studied by the Manufacturing Committee of BMI. However, if polyester drill cloth meets or exceeds the requirements stated on page 34 when tested by the methods outlined on page 70, it maybe used instead of cotton drill.  
7/28/80  
#120
- Question:** *We should like to use a reinforcement material for the first and last signature of a Smyth sewn book which is made of 50 percent polyester/50 percent cotton cloth in place of the present material which is 100 percent cotton cloth. Would this be allowed?*
- Answer:** Yes. A 50 percent polyester/50 percent cotton material may be used as the joint muslin reinforcement on a Smyth-type sewn book if it meets the present thread count and tensile specifications as outlined on page 34 of the MSST under “Reinforcements.”  
7/24/95  
#183

**Question:** *The MSST is clear on reinforcement of endsheets for Smyth-type sewn and side-stitched books. What are the requirements for reinforced endsheets for adhesive-bound books?*

**Answer:** Adhesive-bound, hardcover textbooks do not require reinforced endsheets.  
7/24/00  
#199

## Interpretations to Binding Requirements: Rounding and Backing

**Question:** *What are the specifications applying to the rounding and backing of side-sewn and Smyth sewn books?*

**Answer:** Side-stitched books may be rounded and backed or unbacked (with square back). Smyth sewn books must be rounded and backed.  
2/2/70

## Interpretations to Binding Requirements: Signatures

**Question:** *What are the specifications regarding the last fold of a signature in a side-stitched book?*

**Answer:** The last fold of a signature in a side-stitched book may be on any edge of the book. In a Smyth type sewn book, the last fold shall be the binding edge.  
2/2/70

**Question:** *We plan to use .00285" caliper paper for a book to be bound in 48-page signatures. Manufacturing tolerances in papermaking could bring the sheet above .003 caliper. Is this permitted? If a book is folded in 24-page signatures and one is inserted into another to make a 48-page signature, does the .003 caliper specification apply?*

**Answer:** Standard paper tolerances are plus or minus 5 percent in caliper so that a mill delivery of a sheet .00315 in caliper meets requirements. The .003 caliper specified is not to be reduced by the manufacturing tolerance when paper is ordered. The number of pages in a signature is based on the finished book, not on delivery off the folding machine. Two inserted 24s are a 48-page signature, and .003 caliper applies.  
2/2/71

**Question:** *Are there situations where, even though there is only one insert in a signature, the Smyth sewn book would nonetheless be defective? Please give examples.*

**Answer:** Regardless of the tip-in, which ordinarily should not render a book defective, there are innumerable situations in which a Smyth sewn book might be defective. For example, the adhesives might be inferior, the reinforcing of the title and end signatures might be inadequate, the sewing might be loose or the threads broken, the cover might not fit the book, the building-in might be inadequate; etc.  
2/6/89  
#161

## Interpretations to Binding Requirements: Tolerance

**Question:** *What tolerance is permitted in the trim size of a book?*

**Answer:** The normal variation is due to machine limitations of mechanical equipment. There is no tolerance for trim size specified in MSST. A variation of trim size of plus or minus  $\frac{1}{16}$ " is permissible.  
2/2/76

## Cover Requirements

### Board

#### Accuracy of Cutting, Cover Size Blanks

- a) Blank size—plus or minus  $\frac{1}{32}$ " in either dimension.
- b) Blank squareness—variation of  $\frac{1}{32}$ " (.0312) is allowable when sheets are placed back-to-back and measured 6" along the edge from the squared corners or at the adjacent corner of the blank of a side with a dimension of less than 6".

#### Caliper

The thickness tolerance shall be plus or minus .003" (0.076 millimeters) on boards up to and including 32" in the shorter dimension of area.

#### Color Consistency

The surface of the board shall be reasonably smooth and the color consistency relatively uniform to the extent that neither affects the overall appearance of the cover.

#### Density

Individual sheets shall be not less than 0.8 nor more than 1.0 grams per cubic centimeter.

#### Internal Bond

All boards shall have adequate internal bond in order to resist delamination.

#### Moisture Content

Moisture content at time of shipment shall not be less than 4 percent nor more than 8 percent. Test Procedure SIB TAPPI T-412.

#### Calculation of Number of Sheets Per Bundle or Per Ton

To calculate the number of sheets of cover board of any given size in any of the thicknesses in a bundle or ton, divide the square inches per bundle or per ton as listed in the table below for the given thickness by the area of the sheet desired, without any allowance for trim.

| Thickness<br>Inch | Avg. per Bundle<br>Sq In | Avg. per Ton (2000 lb)<br>Sq In |
|-------------------|--------------------------|---------------------------------|
| 0.050             | 29,120                   | 1,164,800                       |
| .058              | 25,103                   | 1,004,120                       |
| .065              | 22,400                   | 896,000                         |
| .070              | 20,800                   | 832,000                         |
| .075              | 19,413                   | 776,520                         |
| .080              | 18,200                   | 728,000                         |
| 0.88              | 16,545                   | 661,800                         |
| .098              | 14,857                   | 594,280                         |
| .110              | 13,236                   | 529,400                         |
| .120              | 12,133                   | 485,320                         |

## Board (continued)

|       |  | Flexural Properties  |                        |               |           |                    |           |
|-------|--|--|------------------------|---------------|-----------|--------------------|-----------|
| Class | Bulk Measurements<br>Exclusive of Covers and Endsheets   | Thickness  | Bursting Strength      | Breaking Load |           | Rupture Deflection |           |
|       |  | Min. Average   | Average                | Minimum       |           | Minimum            |           |
|       |  | Inches   | Pounds per Square Inch | Lengthwise    | Crosswise | Lengthwise         | Crosswise |
|       |  |  |                        | Pounds        | Pounds    | Pounds             | Pounds    |
| A1    | All texts, exclusive of Class E, up to and including $\frac{3}{8}$ " bulk with a trimmed area less than 70 square inches and up to and including first grade | .058   | 235                    | 2.1           | 1.6       | .22                | .34       |
| A2    | All texts, exclusive of Class E, up to and including $\frac{3}{8}$ " bulk with a trimmed area less than 70 square inches, and above first grade              | .058   | 235                    | 2.1           | 1.6       | .22                | .34       |
| B     | All texts, exclusive of Class E, over $\frac{3}{8}$ " bulk up to and including $\frac{3}{4}$ " bulk and having a trimmed area less than 70 square inches     | .070   | 275                    | 2.8           | 2.1       | .22                | .34       |
| C     | All texts, exclusive of Class E, over $\frac{3}{4}$ " bulk up to and including 1" bulk and having a trimmed area less than 70 square inches                  | .080   | 315                    | 3.8           | 2.8       | .22                | .34       |
| D     | All texts, exclusive of Class E, over 1" in bulk and having a trimmed area of less than 70 square inches   | .088   | 350                    | 4.4           | 3.3       | .22                | .34       |
| E     | All texts having a trimmed area of 70 square inches or more, whether bound on long or short dimension  | .088   | 350                    | 4.4           | 3.3       | .22                | .34       |
| 1     | Books up to and including 1" bulk  | .098   | 385                    | 5.1           | 3.8       | .22                | .34       |
| 2     | Books over 1" bulk   |  |                        |               |           |                    |           |
| F     | Pamphlets, workbooks, etc. According to sample.  | Specifications to suit need and in accord with file sample |                        |               |           |                    |           |

Note: Sampling and testing procedures shall be performed according to the Test Conditions: Samples and Procedures as outlined on page 75.

## Cover Requirements

### General

#### Graded Series

Each book in a graded series is to be easily differentiated from all others by the prominent use of one or more of the following devices on the cover: book title, grade number, a letter or graphic symbol indicating the book's position within the sequence of grades, or a color different from other colors used in the same fashion within the series.

#### Inks, Foils, Turn-Ins

No gold or silver inks are acceptable for letterpress printing or stamping. When powdered metal foils are employed, the finished stamping shall be given a coating of preservative lacquer. Compatible inks shall be used on all such treated materials. All cover turn-ins shall be treated, or a special adhesive used to cause firm adhesion of endsheets to cover turn-ins of such treated materials.

#### Offset Lithographed, Letterpress Printed, Silkscreen Printed, Inked, or Stamped Covers

Offset lithographed, letterpress printed, screen printed, inked, or stamped covers may be employed on any titles, provided Pyroxylin, Vinyl, or other resin-impregnated materials conforming to requirements are used. Offset or screen inks used in printing impregnated cover material shall be of a nature and quality that makes the printing on such covers equal in durability to standard ink or stamped covers. If printed by the lithographic process, a protective top coating or film laminate for abrasion resistance is required to meet test specifications described on page 74.

Adhesives used in film lamination of book cover material shall be capable of maintaining an adequate bond between the surfaces to be joined. Film used shall permit an adequate bond between film surface and endpaper on turn-ins.

### Cloth Prior to Printing and Protective Coating

#### General Requirements

The finished fabric shall be free from pinholes and blemishes that may affect the appearance or serviceability of the material. It must be suitable for use on automatic feeding devices on case making machines.

The base fabric shall be made of cotton thoroughly clean and free from waste. It shall be evenly woven and free from an excessive number of imperfections of manufacture. The weaving shall be plain.

#### Aging Resistance

The specimen shall meet the requirements below, both before and after exposure for 24 hours at a temperature of 105°C—the material to be returned to “standard conditions” prior to testing.

#### Tolerances

The breaking strength values listed in the chart “Prior to Printing and Protective Coating” on page 50 apply only to bookbinding fabrics with a plain finish. A variation of not over 25 percent below the minimum breaking strength values established for plain-finished cloths is allowed on embossed cloths, provided all other requirements are met.

Since the reliability of the resistance to scrubbing test is plus or minus 1 percent, a maximum reading of 6 percent will be tolerated, although the standard of maximum will be listed as 5 percent.

The standards of quality and test procedures herein described are intended to apply to impregnated C-grade book cloths used in the bookbinding industry for textbooks.

## Cover Requirements

### Cloth

Prior to Printing and Protective Coating

| Test   | B Cloth                  | C Cloth                  | C-1 Cloth                | Federal Test Method Standard |
|--|--------------------------|--------------------------|--------------------------|------------------------------|
| Thread count, warp and filling threads per inch on finished material   | 115 min.                 | 108 min.                 | 92 min.                  | No. 191 Method 5050          |
| Weight of gray goods with tolerances allowed under "Worth Street Rules" (4% under, 6% over) ounces per square yard | 2.70                     | 4                        | 5                        | Method 5041 No. 191          |
| <b>Breaking strength—lb</b>  |                          |                          |                          |                              |
| Warp   | 50 min.                  | 55 min.                  | 64 min.                  |                              |
| Filling  | 20 min.                  | 42 min.                  | 48 min.                  | No. 191                      |
| Sum of warp and filling  | 77 min.                  | 105 min.                 | 120 min.                 | Method 5102                  |
| <b>Resistance to scrubbing</b>   |                          |                          |                          |                              |
| Percent fall-out in 175 strokes  | 5% max.                  | 5% max.                  | 5% max.                  |                              |
| <b>Crocking, wet and dry</b>   | 3.5 min.                 | 3.5 min.                 | 3.5 min.                 | No. 191 Method 5651 Method B |
| <b>Stability to light (40 hours)</b>   | fair, min.               | fair, min.               | fair, min.               | No. 191 Method 5660          |
| <b>Water spotting resistance</b>   | fair, min.               | fair, min.               | fair, min.               |                              |
| <b>Blocking resistance</b>   | Condition #2 No blocking | Condition #2 No blocking | Condition #2 No blocking | No. 191 Method 5872 modified |
| <b>Abrasion resistance (Stoll)</b>   | 40 cycles min.           | 65 cycles min.           | 100 cycles min.          | No. 191 Method 5302 modified |
| <b>Tear strength (gms)</b>   | 256                      | 400                      | 512                      | No. 191                      |
| Warp   | 192                      | 336                      | 448                      | Method 5132                  |
| Filling  |                          |                          |                          |                              |



## Cover Requirements

### Gray Goods

| Pyroxylin, or Other Resin—Impregnated Materials |  |              |  |
|---|--|--------------|--|
| Class   | Bulk Measurements<br>Exclusive of Covers and Endsheets   | Mfrs. Group* | Weight of Gray Goods<br>With tolerances allowed under “Worth<br>Street Rules” (4% under, 6% over).<br>Ounces per square yard |
| <b>A1</b>                                       | All texts, exclusive of Class E, up to and including $\frac{3}{8}$ " bulk with a trimmed area less than 70 square inches and up to and including first grade | B            | 2.7  |
| <b>A2</b>                                       | All texts, exclusive of Class E, up to and including $\frac{3}{8}$ " bulk with a trimmed area less than 70 square inches, and above first grade              | C            | 4  |
| <b>B</b>  | All texts, exclusive of Class E, over $\frac{3}{8}$ " bulk up to and including $\frac{3}{4}$ " bulk and having a trimmed area less than 70 square inches     | C            | 4  |
| <b>C</b>  | All texts, exclusive of Class E, over $\frac{3}{4}$ " bulk up to and including 1" bulk and having a trimmed area less than 70 square inches                  | C            | 4  |
| <b>D</b>  | All texts, exclusive of Class E, over 1" in bulk and having a trimmed area of less than 70 square inches   | C-1          | 5  |
| <b>E</b>  | All texts having a trimmed area of 70 square inches or more, whether bound on long or short dimension:   |              |  |
| <b>1</b>  | Books up to and including 1" bulk  |              |  |
| <b>2</b>  | Books over 1" bulk   | C-1          | 5  |
| <b>F</b>  | Pamphlets, workbooks, etc.<br>According to sample.   | C-1          | 5  |

\*See Cloth, Prior to Printing, pages 51–52.

## Cover Requirements

### Type III Non-Woven

Non-woven materials meeting specifications may be used interchangeably with cloth Manufacturer's Groups B, C, and C-1, which cover Classes A through E inclusive.

| Test                      | Type III Non-Woven   | Federal Test Method Standard or Other Test Method |
|---------------------------|--|---|
| Breaking strength         | MD 40lb/in. min.<br>CD 40 lb/in. min.<br>Sum of MD and CD not less than 95 lb/in. min. | No. 191 Method 5102                               |
| Elongation*               | 7 x 10% min.   | No. 191 Method 5102 modified*                     |
| Tear resistance           | 208 x 224 grams min.   | No. 191 Method 5132                               |
| Abrasion (Stoll)          | 125 cycles min.  | No. 191 Method 5302 modified (See page 69.)       |
| Folding endurance         | 2000 flexes min.   | TAPPI T-511                                       |
| Internal band (Substrate) | 8 oz/in. min.  | UM-569<br>Method A or Method B                    |
| Blocking                  | Condition 1  | No. 191 Method 5872 modified (See page 69.)       |
| Stability to light        | fair, min.   | No. 191 Method 5660                               |
| Water spotting resistance | good, min.   | See page 71.                                      |

### Aging Resistance

The specimen shall meet the above requirements both before and after exposure for 24 hours at a temperature of 105°C—the material to be returned to standard conditions prior to testing.

### Elongation

Federal Test Method Standard No. 191 Method 5102 modified

The method of reading the charts is modified as follows: The elongation shall be the extension of the specimen as indicated on the chart measured from the point where the recording starts to indicate load to the point of maximum tensile. The elongation is expressed as a percentage of the initial gauge length of the specimen.

## Cover Requirements

### Type II Non-Woven

Type II non-woven materials meeting specifications may be used interchangeably with cloth Manufacturer's Groups B, C, and C-1, which cover Classes A through E inclusive.

| Test                      | Type II Non-Woven    | Federal Test Method Standard or Other Test Method |
|---------------------------|----------------------|---|
| Breaking strength         | 55 x 35 lb/in. min.  | No. 191 Method 5102                               |
| Elongation*               | 5 x 10% min.         | No. 191 Method 5102 modified*                     |
| Tear resistance           | 208 x 224 grams min. | No. 191 Method 5132                               |
| Abrasion (Stoll)          | 125 cycles min.      | No. 191 Method 5302 Modified                      |
| Folding endurance         | 2000 flexes min.     | TAPPI T-511                                       |
| Internal band (Substrate) | 12 oz/in. min.       | UM-569<br>Method A or Method B                    |
| Blocking                  | Condition 1          | No. 191 Method 5872 modified (See page 69.)       |
| Stability to light        | fair, min.           | No. 191 Method 5660                               |
| Water spotting resistance | good, min.           | See page 71.                                      |

### Aging Resistance

The specimen shall meet the above requirements both before and after exposure for 24 hours at a temperature of 105°C—the material to be returned to “standard conditions” prior to testing.

#### Elongation

Federal Test Method Standard No, 191 Method 5102 modified

The method of reading the charts is modified as follows: The elongation shall be the extension of the specimen as indicated on the chart measured from the point where the recording starts to indicate load to the point of maximum tensile. The elongation is expressed as a percentage of the initial gauge length of the specimen.

### Interpretations to Cover Requirements: Board

**Question:** *Must the grain of cover board run parallel to the backbone?*

**Answer:** No, there is no specification covering grain of cover board.  
2/2/71

**Question:** *Material supplied on an adoption is contained in a slipcase. Must the board used meet cover-board specifications?*

**Answer:** No. There are no specifications applying to the materials or use of slipcases.  
7/23/71

**Question:** *Is pasted chipboard permissible under the specs? There is nothing mentioned about pasted chipboard in the specs.*

**Answer:** A pasted chipboard that meets the specifications on pages 47 and 48 may be used.  
7/28/75

## Interpretations to Cover Requirements: Cloth

**Question:** *Must the warp of cover cloth run across the backbone of the book?*

**Answer:** There is no specification in the *Manufacturing Standards and Specifications for Textbooks* requiring the warp of the cover cloth to run across the backbone of the book. Cover cloth may have the warp run either way on the cover. The only specifications regarding the direction in which warp threads shall run are for super, where the warp threads must run across the backbone, and for stitched book endsheet reinforcements, where the warp threads must run parallel to the backbone of the book.  
7/25/70

**Question:** *Can C-grade cloth be used on a book with a trimmed area of over 70 and bulking ¼"?*

**Answer:** No. C-1 cloth must be used.  
2/2/71

**Question:** *Can B-grade or C-grade pyroxylin with a Mylar film be used on an 8¼" x 9¼" book? Is less bulk (below 1¼") a factor?*

**Answer:** No. C-1 is required. An 8¼" X 9¼" book falls in Class E.  
7/25/71

**Question:** *If Mylar was laminated to a weak cloth so that the combined material was equal to or stronger than cloth spec, could it be used as meeting specs?*

**Answer:** No. The base cloth must meet specs prior to printing, top coating, or laminating.  
2/2/73

## Interpretations to Cover Requirements: Non-Woven

**Question:** *Under what circumstances can non-woven cover material be used? How can we tell whether it meets specifications?*

**Answer:** Non-woven material may be used in place of book cloth if it meets the specifications on pages 54 and 55 of *Manufacturing Standards and Specifications for Textbooks*. If you plan to use one of those available, you should obtain from the manufacturer the results guaranteed for the tests required on each specification on the page. Should any results be below the requirement specified, the material may not be used. Sometimes material manufacturers object to giving out their company manufacturing specifications but will attest that the material conforms to or exceeds the standards published in the Standards and Specifications. In this case you should obtain a warranty to this effect. In submitting a book for adoption, you guarantee that state specifications are met in your *Warranty (Form B)* and you should have supporting evidence of this.  
7/25/70

**Question:** *We have been told by an adopting agency that no non-woven may be used for the cover of a casebound book and that non-wovens may be used for soft covers only. Is this correct?*

**Answer:** No. Unless the adopting agency has additional rules beyond the MSST, any non-woven material meeting the specifications on pages 52–53 may be used in place of Cloth Manufacturers' Groups B, C, or C-1 cloth. The specifications at the end of the Non-Consumable Softcover Texts section apply to Class AA, BB, and CC softcover texts only and do not pertain to the use of non-wovens for casebound books.  
7/23/73

- Question:** *We market a Type III non-woven. We have been told that the tensile strength is 40 in each direction, but the sum of the tensile strengths of both directions must be 95. Is 95 an error?*
- Answer:** No. A material that tests 40 in each direction would be 15 points below the specification for the sum of the two. If one direction tests 40, the other must test 55 or more.  
2/3/75
- Question:** *Is any cover material that is not a woven thread (cloth) a non-woven? What are the requirements for hardcover non-wovens? See the definition of "Non-woven" on page 9.*
- Answer:** The specifications for non-woven material for hardcovers are set forth on pages 52–53. Nowhere is it stated that the specification is limited to Type II or Type III non-woven as defined on page 12. Any non-woven material which meets the standards on pages 52–53, regardless of the type (Type I, II, III or a type yet to be discovered), is acceptable.  
2/3/75
- Question:** *Can the cover material of an already adopted hardcover book be changed from Type III to Type II Non-Woven? If so, what procedure must be followed?*
- Answer:** Yes, Type II Non-Woven may be used if it meets the specifications on page 52. No permission or notice is required in order to make the change.  
2/2/76
- Question:** *At what stage do the specifications for cover material apply as stated on pages 52–53 of MSST?*
- Answer:** The material must meet these specifications when it is shipped from the manufacturer to the printer, and it must be so warranted.  
2/6/84  
#132
- Question:** *May I substitute a Type II cover material for that of a Type III cover material without taking action to notify those agencies which had previously adopted their books covered in Type III?*
- Answer:** Yes. A Type II cover material may be substituted for a Type III cover material since each of them is interchangeable with cloth. (See pages 52–53.) If they are both interchangeable with cloth, they are interchangeable with each other, and interchangeability implies equivalency. Based on the wording of the warranty (page six), books must be identical to or equivalent to the official sample. No new Form B is required when an equivalent material is used on copies subsequently furnished under the contract.  
2/4/85  
#139

## Interpretations to Cover Requirements: Graded Series

- Question:** *We have an English series in which each book has the title "English" plus a code consisting of a letter and a number. No grade or level appears in the title. The books are used both as a graded series and individually. The word "English" is on the spine, runs up the back, and is ½" high and 2 ¾" long. All covers have the same all-over pictorial design in color. Would printing the word "English" and the code in a different color for each book cover meet the graded series requirement on page 49 of the specs for these books when used as a graded series?*
- Answer:** Yes. A prominent color which stands out so that it easily identifies the book from the others in the series is acceptable.  
7/24/72
- Question:** *We have an Item IV non-consumable text series where each grade is split into four or five softcover pamphlets. Should each section of the same grade use the same color?*
- Answer:** Yes. These are parts of one segmented book.  
2/11/74

## Interpretations to Cover Requirements: Offset Lithographed, Letterpress Printed, Silkscreen Printed, Inked, or Stamped Covers

**Question:** *May silkscreen be used for printing cloth covers?*

**Answer:** Silkscreen is permitted. The cloth shall be the same grade used for other covers (offset or stamped), and the printed covers do not require a top coating as do offset covers.  
2/2/70

**Question:** *Do silkscreen printed covers require top coating?*

**Answer:** No. Only lithographed covers require top coating.  
2/4/72

**Question:** *We find no specifications for onlays glued to covers. Are they permitted?*

**Answer:** In the absence of any reference to onlays in the specifications and with a specific and detailed list of cover treatments on page 49, it is implied that only cover decoration as listed on page 49 is permitted. Thus, onlays are not permitted under the specifications.  
7/25/74

**Question:** *Is it permissible to apply a sticker containing the ISBN and/or bar code on the back cover of a textbook?*

**Answer:** No. In this instance, a sticker is treated the same as a cover onlay which is not permitted under MSST specifications. This is consistent with an earlier interpretation that refers to cover treatments on page 49.  
7/24/02  
#203

**Question:** *What is the status on textbook cover embossing?*

**Answer:** NASTA officially ruled out embossing of textbook covers at their 2005 annual meeting. The 2005 embossing ruling is effective for 2009 copyright material; exceptions must be listed on Form B as deviations. The embossing ruling does not affect existing material (copyright pre-2009) for the life of the product.  
8/01/06  
#208

**Question:** *May adhesive binding be substituted for Smyth sewing in reprinting a title? Are the accepted adhesive-binding styles considered equivalent to the Smyth sewn style of binding for which they might be substituted?*

**Answer:** Yes. Publishers may convert previously sewn editions to adhesive-bound alternatives, provided that the state has been notified, and the conversion conforms with the adhesive-bound specifications as outlined in the adoptions on adhesive binding dated 7/22/91 and 2/3/92. These changes cover the new adhesive-binding specifications agreed to by the MSST committee following the five-year test program and the revisions to those specifications adopted in February of 1992.

The Report of the ABT Commission on adhesive binding dated February 4, 1991, stated that "adhesive binding is a viable and reasonable alternative to Smyth sewing." With the adoption of adhesive binding, the intent of the specifications was that hardcover adhesive binding may be used in all cases where Smyth sewing is allowed except for the restrictions outlined in the revision of the unmilled adhesive-bound specifications on 2/3/92.

The notification requirement shall be considered satisfied if a Form B is filled out indicating that the book will be adhesive-bound and the type of adhesive binding to be used. There is no need to fill out the warranty again or submit new samples to the state on a change of this type.

## Specifications for Hardcover Adhesive-Bound Books

Adhesive-bound hardcover textbooks must conform to all other general textbook specifications for printing and binding except as noted below.

### Definitions

#### Adhesive-Bound Textbook

A textbook bound in a method (milled or unmilled) in the signatures and/or individual pages are joined together using adhesives in such a manner as to adhere each page to the block

#### Unmilled

A method of adhesive binding in which the folds of each signature have been largely maintained in such a manner as to adhere each page and each signature to the block

The backs of unmilled adhesive bound books are often roughed as on the milled books to allow for better absorption of the adhesive.

#### Milled

A method of adhesive binding in which the folds of the signature have been cut off creating a block of single pages which are then joined together at the cut edge by applying adhesive after the spine has been roughed

### Classifications

Hardcover adhesive binding may be used for all Class II secondary level textbooks and in elementary textbooks where Smyth sewing is allowed in the following disciplines only:

Foreign language

Social studies

### Printing Requirements—General

#### Margins

The marginal measurements given are subject to normal variation due to the limitations of mechanical equipment. Tolerance for back margins shall be a normal variation of plus or minus  $\frac{1}{16}$ ".

Back margin not less than  $\frac{5}{8}$ " measured from the binding edge to the text page; head  $\frac{3}{8}$ "; front  $\frac{1}{2}$ "; foot  $\frac{5}{8}$ ".

Marginal notes, foot folios, line numerals, extended side heads, maps, and bleed-type illustrations and captions (legends) are not considered part of text page; but no less than  $\frac{1}{4}$ " net margins are permitted on any except bleed-type illustrations. Any illustrative treatment not in accordance with the above must be shown in file sample and specifically referred to in the publisher's Form B.

### Paper Requirements—General

**Grain:** For adhesive binding, grain shall run parallel to the binding edge of the book.

**Type of Paper:** All paper presently meeting the specifications on page 28, maximum weight of 60 lb is allowable.

### Binding Requirements—General

#### Adhesives

In all operations of book binding, adhesives used shall be capable of forming an adequate bond between the surfaces to be joined. The adhesives shall be of such quality that the bonded areas cannot be separated without damage to the bonded surface.

## **Case Lining Materials**

Case lining material used in the covers of adhesive-bound books cased in “tight-back” shall have a bursting strength (Mullen test TAPPI T-403) of not less than 45 points per square inch.

## **Casing-In**

All adhesive-bound books shall be cased in tight-back.

## **Endsheets**

All adhesive-bound books shall be manufactured with endsheets that are not split apart at the binding edge and meet the strength specifications on page 27 of the MSST.

## **Inserts**

Non-correctional inserts are permitted if printed on paper similar to that used for the text and must be bound into the text so that the overall strength of the book is not diminished in any way.

Except by agreement between the publisher and the adopting agency, not more than three inserts for correctional purposes shall be permitted. Each correctional insert shall be tipped on the stub of the leaf it replaces and be printed on similar paper as the leaf it is replacing.

## **Lining-Up and Headbanding**

All adhesive-bound books, up to and including 1½" bulk, shall be lined up with one super extending over both joints of the books and on to each cover board not less than 1"; this shall be of tape style and shall have 40 warp and 16 filling threads per square inch and a tensile strength of not less than 36 lb warp and 9.0 lb filling.

A tolerance for any super in thread count above or below the specifications of not more than one thread in each direction per square inch is permitted.

Tensile strength of all supers shall be determined by the strip method. (See Test Conditions, Samples and Procedures, pages 75–80.)

There must be two applications of adhesive when one super is used.

All supers must be applied with the greater number of warp threads across the backbone of the book, and the super must extend to within ½" of the head and tail of the book.

Back-lining is required only when headbands are used. Back-lining material shall be of suitable weight and quality, applied over headbands, and extend to within ⅛" of head and tail trimmed edges of book and entirely across the backbone of the book and shall have a bursting tensile strength (Mullen test) of not less than 45 points per square inch (TAPPI T-403).

Adhesive-bound books may have a capping material glued to the spine of the book. This should overlap by at least ⅛" and be glued to the sides of the book. This material may be applied directly to the books as a capping material or may be used in combining endsheets.

## **Rounding and Backing**

Rounding and backing with suitable joints is required on all adhesive-bound books.

## **Joints**

Board must be set off from joints or back to permit full opening of the cover. The joint for an adhesive-bound book should be wider than that of a Smyth sewn book.

## **Bulk Requirements**

All adhesive-bound books shall conform to the bulk requirements as specified in the table on page 60 of the MSST wherever Smyth sewing is permissible up to and including a maximum of 1½" in bulk.



## Specifications for Non-Consumable Softcover Texts

All textbooks must be bound in hard covers except those listed on page 13, which may be soft bound in accordance with the following specifications.

There shall be three classes of non-consumable softcover texts as follows:

### Class AA

All texts up to and including  $\frac{1}{4}$ "

### Class BB

All texts over  $\frac{1}{4}$ ", up to and including  $\frac{1}{2}$ ", having a trimmed area up to and including 100 square inches

### Class CC

All texts over  $\frac{1}{2}$ ", up to and including  $1\frac{1}{2}$ ", or any text over  $\frac{1}{4}$ " having a trimmed area in excess of 100 square inches

These three classes of softcover texts shall meet the following specifications:

### Printing Requirements—General

All specifications outlined on pages 17–18 shall apply.

### INSTRUCTIONAL MATERIAL

**No instructional material** shall be printed on any page of endsheets or on either inside cover of softcover texts unless reproduced elsewhere in the book. Decorative designs may be used, and certain technical data printed solely to comply with government requirements or publishing convention shall be exempted, insofar as these are not conceived as part of a curriculum. These include the following or similar items:

|                         |                 |                             |
|-------------------------|-----------------|-----------------------------|
| "Do not photocopy"      | Dedication      | List of publisher's offices |
| "Permission is granted" | Acknowledgments |                             |
| Ownership record form   | Credits         |                             |

### MARGINS

The marginal measurements given are subject to normal variation due to the limitations of mechanical equipment

Tolerance for back margins shall be a normal variation of plus or minus  $\frac{1}{16}$ ".

#### Side-wired or side-thread-stitched titles

Back margin not less than  $\frac{3}{4}$ " measured from side wiring or stitching to text page; head  $\frac{3}{8}$ "; front  $\frac{1}{2}$ "; foot  $\frac{5}{8}$ "

#### Saddle stitched, saddle wire bound, saddle sewn, Smyth sewn, adhesive bound

Back margin not less than  $\frac{5}{8}$ " measured from gutter to text page: head  $\frac{3}{8}$ ", front  $\frac{1}{2}$ ", foot  $\frac{5}{8}$ "

Marginal notes, foot folios, line numerals, extended side heads, maps, and bleed-type illustrations and captions (legends) are not considered part of text page, but no less than  $\frac{1}{4}$ " net margins are permitted on any except bleed-type illustrations. Any illustrative treatment not in accordance with the above must be shown in file sample and specifically referred to in the publisher's Form B. (See page two of the form.)

### Quality

All forms are to be carefully made ready, pages aligned and registered; the presswork of the text, the illustrations and the inks used, and other details are to conform to the high quality accepted as a standard by the craft.

## Paper Requirements

All papers, groundwood and free sheet, shall meet the specifications after artificial aging conditioning of 24 hours in a dry oven at 100°C. Where the acronym *TAPPI* is used in these specifications with accompanying symbols, it refers to the standards and measurements established by the Technical Association of the Pulp and Paper Industry.

### Basis Weight of Book Paper Determined on 25" x 38"—500 sheet ream count

#### Color

White

#### Gloss

Maximum gloss for all papers used for self-illustrated text (This specification does not refer to paper used for inserts.)

Using TAPPI T-480—Max. 33

#### Grain

Grain of all paper may run in either direction regardless of the printing process used, except for adhesive-bound books on which the grain shall run parallel to the binding edge of the book.

#### Opacity

All papers, both vellum and smooth, when tested according to TAPPI T-425 shall conform to these requirements:

| Basis Weight   | Opacity                  |
|----------------|--------------------------|
| 40 to 49 lb    | Not less than 90 percent |
| 50 to 59 lb    | Not less than 91 percent |
| 60 lb and over | Not less than 92 percent |

#### Permanence

The artificial aging condition described above applies to all papers.

#### Strength

| Basis Weight   | Min. Avg. in Each Direction | Basis Weight   | Bursting Strength       |
|----------------|-----------------------------|----------------|-------------------------|
| 40 to 49 lb    | 28                          | 40 to 54 lb    | Not less than 16 points |
| 50 to 59 lb    | 30                          | 55 to 64 lb    | Not less than 17 points |
| 60 lb and over | 35                          | 65 lb and over | Not less than 18 points |

## Paper Weight

### Class AA

Minimum basis: 50 lb for texts in grades K–12

### Class BB

Minimum basis: 50 lb for texts in grades K–2; 40 lb for texts in grades 3–12

### Class CC

Minimum basis: 50 lb for texts in grades K–2; 40 lb for texts in grades 3–12

### Tolerance—Misc. paper specifications

Variations in the bursting strength, tearing strength, color, and opacity requirements are permitted to meet the production needs of unusual titles, provided the file sample and Form B statement show variations and these variations are accepted by adopting agency.

### Tolerance—Bulk Measurements (Exclusive of Covers and Endsheets)

A tolerance of  $\frac{1}{16}$ " in bulk, either below or in excess of prescribed bulks in Classes AA to CC inclusive, is permitted to allow for commercial variation in processing.

## Specifications for Non-Consumable Softcover Texts

### Binding Requirements

#### Style of Binding:

Bulk  $\frac{1}{4}$ " or less—any of the following methods may be used: saddle wire, saddle sewn, side wire, Smyth sewn, side-thread stitch. Adhesive binding may not be substituted for Smyth sewing.

Exceptions: Item II books (readiness books and pre-primers in reading) and Item IV books (first grade readers) are limited to side wire, side thread stitched, saddle sewn, or saddle wire. (See page 13.)

Bulk over  $\frac{1}{4}$ " up to and including  $\frac{1}{2}$ "—any of the following methods may be used: saddle sewn, side wire, Smyth sewn, side thread stitch, adhesive binding.

Exceptions: Item II books (readiness books and pre-primers in reading) and Item IV books (first grade readers) are limited to side wire, side thread stitched, saddle sewn. (See page 13.)

Bulk over  $\frac{1}{2}$ "—any of the following methods may be used: Smyth sewn, side thread stitch, or adhesive binding.

Exceptions: Item II books (readiness books and pre-primers in reading) and Item IV books (first grade readers) are limited to side wire, side thread stitched, saddle sewn. (See page 13.)

Where side wire is allowed, the wires must be clinched at the back.

### Staples—saddle-wired books

Up to and including  $9\frac{1}{4}$ " height at back-bone—not less than two staples Over  $9\frac{1}{4}$ " height at backbone—not less than three staples

### Reinforcement—saddle-wired books

If the backbone is parallel to the grain of the paper, the center four pages shall either be pasted to the adjacent four pages, or the center of the signature shall be stripped with muslin.

Note: If a bind style is not identified above, it cannot be used for softcover non-consumable texts. Any bind style can be used for Class F softcover consumable texts.

## Adhesives

Adhesives used in all operations of book binding shall be capable of forming an adequate bond between the surfaces to be joined. The adhesive shall be of such quality that the bonded areas cannot be separated without damage to the bonded surfaces. The specific type of adhesive to be used is to be determined by the book manufacturer.

## Inserts

### Saddle-wired or saddle-sewn books

Single non-correctional inserts and/or double-page maps and inserts may be tipped in. Any non-correctional insert which falls in the center fold of a saddle-wired book shall be a four-page insert printed on paper not lighter in weight than the text paper.

### Side-stitched and/or side-wired books

Single non-correctional inserts shall be inserted to the fold of the signature so that they are sewn or stitched in by the thread and/or wire. Double-page non-correctional inserts (four-page sections), maps, or fold-out inserts shall be mounted on strong bond, ledger, or similar paper (or muslin) guards inserted to the fold of the signature so the guard is sewn or stitched in by the thread and/or wire. The fold of the insert shall be free of the thread or wire. Double-page non-correctional inserts, maps, etc. may also be stitched in as integral units of the book. Except by agreement between the publisher and the adopting agency, no more than three inserts for correctional purposes shall be permitted. Each correctional insert shall be tipped on the stub of the leaf it replaces and be printed on similar paper as the leaf it is replacing.

### Smyth sewn books

If a signature has one single non-correctional insert, the insert may be tipped in. If a signature has more than one single non-correctional insert, each shall be  $\frac{1}{4}$ " wider than the signature and shall be inserted so that the  $\frac{1}{4}$ " stub is tipped around the signature (or portion thereof) at the fold and sewn in by the thread. Double-page non-correctional inserts (four-page sections), maps, or fold-out inserts shall be mounted on strong bond, ledger, or similar paper (or muslin) guards which shall be tipped around the signature section so that they are sewn in by the thread. Double-page non-correctional inserts, maps etc. may be inserted or wrapped around the signature so that they are sewn in as integral parts of the signature. Such four-page sections may also be sewn in separately. Double-jacketed non-correctional inserts (eight-page sections) may be inserted into or wrapped around signatures so that they are sewn in as units of the book, sewn in as signatures, or used in accordance with any other standard book practice. Except by agreement between the publisher and the adopting agency, no more than three inserts for correctional purposes shall be permitted. Each correctional insert shall be tipped on the stub of the leaf it replaces and be printed on similar paper as the leaf it is replacing.

**Inserts consisting of transparent overlays** of one or more sheets fastened to a base sheet by wire, adhesive, or heat sealing shall be securely mounted on a strong bond, ledger, or similar paper (or muslin) guards, with guards tipped around signature section. Wire shall be tinned.

### Adhesive-bound books

Non-correctional inserts in adhesive-bound books shall be printed on the same body stock as the text. Except by agreement between the publisher and the adopting agency, no more than three inserts for correctional purposes shall be permitted. Each correctional insert shall be tipped on the stub of the leaf it replaces and be printed on similar paper as the leaf it is replacing.

## Cover Material

See Chart, page 64.

## Cover Attachment

**Saddle wire:** Wire stapled through backbone

**Saddle sewn:** Sewn through backbone

**Side wire, Side thread, Smyth sewn, Adhesive bound:** glued to backbone.

In the case of side wire and/or side thread stitched books, split covers wired, or stitched on, with a cloth strip applied to the backbone, may be used in place of a glued-on cover. This cloth strip shall extend beyond the staple or the thread stitch.

If cover material has a grain direction, the grain direction shall be parallel to the backbone of the book.

## Cover Coating

If offset printed on coated cover material, a protective top coating for abrasion resistance is required. The test for abrasion resistance shall be made in accordance with the following procedure:

Three samples shall be cut from characteristic areas of the coated or laminated book cover material and shall be tested for resistance to abrasion on a Taber Abraser using CS 17 wheels weighted 500 grams for 40 cycles as outlined in Federal Test Method Standard No. 191 Method 5306. When so tested, there shall be no apparent wear of the imprinted image in the abrasion track. See page 73 for more detail.

Cover Materials for Non-Consumable Softcover Texts must meet the minimum specifications for Class AA, BB and CC listed below.

| Prior to Printing and Protective Top Coating—Aged and Unaged Specifications |  |  |          |          |                      |
|---|--|--|----------|----------|----------------------|
| Test  | Units  | Test Method                            | Class AA | Class BB | Class CC             |
| Elmendorf Tear (CD)—min.<br>(MD)—min.                                       | Grams  | TAPPI                                  | 230      | 230      | 300                  |
|   |  | T-414 ts-65                            | 220      | 220      | 300                  |
| Tensile Energy Absorption (CD)—min.<br>(MD)—min.                            | ft-lb/ft <sup>2</sup>  | TAPPI                                  | 10.0     | 10.0     | 20.0                 |
|   |  | T-494 om-88                            | 7.5      | 7.5      | 15.5                 |
| Tensile Strength (CD)—min.<br>(MD)—min.                                     | lb/in  | TAPPI                                  |          |          |                      |
|   |  | T-494 om-88                            | 33<br>54 | 33<br>54 | 50.0<br>70.0         |
| *Internal Bond—min.<br>(substrate)  | ft-lb/<br>per sq in  | TAPPI T-569                            | 75       | 75       | 340                  |
| MIT Fold (CD)—min.  | Cycles   | TAPPI<br>T-511 su-69                   | 150      | 150      | 4M Unaged<br>3M Aged |
| <b>Aging Resistance</b>   | The specimen shall meet all requirements on this page both before and after exposure for 24 hours at a temperature of 105° C—the material to be returned to standard conditions prior to testing. (See page 64 for a description of the test.) |  |          |          |                      |
| <b>Blocking max.<br/>Before printing and/or<br/>after top coating</b>       |  | Fed. Test<br>Method 191<br>Method 5872 | Cond. 1  | Cond. 1  | Cond. 1              |
| <b>Stability to Light—min.</b>  |  | Fed. Test<br>Method 191<br>Method 5660 | Fair     | Fair     | Fair                 |

\*See pages 73 and 79

These specifications were developed around existing products and are subject to review when innovative products with their appropriate testing procedures become available.

### Backcoating

If cover material is backcoated, the backcoating shall be compatible to binding adhesives.

# Standard Forced Aging Conditions for Non-Woven Flush-Cut-Covering Materials

## Brief Description of Test

The samples to be tested are subjected to a controlled temperature for a prescribed period of time to simulate natural aging. Preconditioning is not required.

## Equipment

An oven with the following characteristics is required:

1. Forced air circulation to provide uniform heat distribution
2. Vertical sample suspension device (A rotating sample holder helps assure uniform conditioning.)
3. Heat range and control capable of achieving and holding  $105^{\circ}\text{C} \pm 1^{\circ}\text{C}$

## Method

Allow oven to heat and stabilize at  $105^{\circ}\text{C}$ . Cut samples to appropriate size for suspension in the oven. Place samples in the oven suspended vertically. Allow 24 hours uninterrupted aging under these conditions. At the end of the aging time, place the samples in a conditioned area under TAPPI conditions prescribed in T-402 os-70 for 24 hours or as prescribed in subsequent physical test procedure.

## Interpretations to Style of Binding

**Question:** *We have a side-wired non-consumable softcover text with cover glued to back. Is a reinforcing strip required to be used on the front and back signatures?*

**Answer:** No.  
7/28/75

**Question:** *Are two wires enough for a side-wired non-consumable softcover text over 9"?*

**Answer:** Yes. There is no specification for the number of side wires in the non-consumable softcover text specifications. No additional wire is specified for books over a certain length.  
7/28/75

**Question:** *Could we use adhesive binding in place of saddle wire?*

**Answer:** No. Saddle wire is limited to  $\frac{1}{4}$ " or less in bulk. Adhesive binding is permitted only over  $\frac{1}{4}$ " to  $\frac{3}{4}$ ".  
7/28/75

**Question:** *What is the specification for the muslin used in the grain parallel saddle-wired book reinforced with muslin at the center (p. 63)?*

**Answer:** The specification for "Reinforcements: Smyth sewn book" on page 34 applies.  
7/25/77

**Question:** *We are planning to publish a softcover non-consumable text that must meet current MSST in all respects. We desire to print some material on the inside back cover which will not appear elsewhere in the book. Is this permitted under the current MSST?*

**Answer:** The inside front and back covers of a softcover non-consumable textbook should conform to the same general printing requirements as those governing endsheets. Their position relative to the text of the book is the same as that of endpapers since both the cover and the endpaper are used for strengthening and reinforcing the book block. As a result, if you wish to print materials that do not appear elsewhere in the book, the material cannot be instructional. It may be any material that is decorative in nature and is not referred to in the book.  
2/4/85  
#137

**Question:** *I have charts and tables in a Smyth sewn non-consumable softcover text. Do they have to conform to margin specifications in MSST? Furthermore, if I put a rule around these charts and tables, does the rule have to conform to the margin specifications?*

**Answer:** Non-consumable softcover texts are subject to the same margin specifications as hardbound textbooks, and the charts and tables as text pages must conform to the MSST. A rule around a page is not part of the text page and falls into the same category as marginal notes, footfolios, line numerals, extended side heads, maps, bleed-type illustrations, and captions (legends), which are also not considered part of the text page, but no less than ¼" net margins are permitted on any except bleed-type illustrations.

**Question:** *Can any form of mechanical binding be used on a music book that is a non-consumable product?*

**Answer:** No. Mechanical binding can only be used for Class F products. Non-consumable products cannot use any form of mechanical binding. The Form Bs would have to be marked as not meeting MSST specs if mechanical binding is used on a non-consumable product. Binding styles for non-consumable products are listed in the MSST in the Binding Requirements and the Specifications for Non-Consumable Softcover Texts.

Definition - The term "mechanical binding" encompasses different forms of binding techniques such as spiral, wire-o, plastic comb, and three/four/five ring binding.

**Question:** *Can a non-consumable book be spiral bound?*

**Answer:** Spiral binding is not an approved binding style for any non-consumable book, as the pages are not secure for a product that will be in the classroom for multiple years. This binding style is only used for Class F product that is consumable or other ancillary product. It would be acceptable using form B to submit non-consumable spiral bound books as not meeting MSST specifications.

## Interpretations to Adhesives

**Question:** *A binder has delivered us an adhesive-bound book with leaves falling out as soon as the book is opened. Are there any standards such as pull or flex tests required under MSST?*

**Answer:** This is covered by the Adhesives specifications on page 32. There is no flex or pull test. Since your book separates with no damage to the bonded areas, it appears that the adhesive does not meet standards.

**Question:** *Is PUR glue accepted in the MSST?*

**Answer:** Yes. Specific types of adhesives are not specified in the MSST. The MSST requirement for the adhesive that is to be used is "Adhesives used in all operations of book binding shall be capable of forming an adequate bond between the surfaces to be joined. The adhesive shall be of such quality that the bonded areas cannot be separated without damage to the bonded surface."

**Question:** *Can an eight-page non-consumable softcover text printed on .006 caliper 100-lb paper be self-covered? The book is a pre-primer.*

**Answer:** No. This is a Class AA book and a cover must be used which meets the AA cover material specs on page 61. These are much higher than the specs met by a text paper.

**Question:** *Can a Type I non-woven (paper) be used for cover material for Classes AA, BB, and CC of non-consumable softcover texts?*

**Answer:** Yes, provided it meets the specifications on page 61.



## Interpretations to Cover Attachment

**Question:** *Can we use a thinner than 17-point Type II non-woven Class BB non-consumable softcover text?*

**Answer:** No caliper is specified for cover material. You may use the lightest weight that meets the specifications on page 61.  
2/7/77

**Question:** *We have a saddle-wired non-consumable softcover text. We can save 5" of waste on each sheet of cover material if the sheet is used cross grain. Is this permissible?*

**Answer:** No. Page 63 states that if a cover material has a grain, the grain must be parallel to the backbone of the book.  
2/11/74

**Question:** *We coat both hardcover and softcover materials after printing and find that almost all softcover materials fail the 150-cycle Taber test after coating. Do the coating specifications apply to soft covers?*

**Answer:** Yes. There are two specifications for coating. Only hardcover books require 150 cycles. Soft cover books require only 40 cycles.  
2/3/75

## Interpretations to Miscellaneous Textbook Specifications

**Question:** *May supplementary readers for grades 1–3 be softbound under the new supplemental softcover specifications?*

**Answer:** Supplementary readers for grades 1–3 do not fall in the Reading Readiness and Pre-Primer classification of the new softcover specs. If they are each used independently as a textbook, they would fall in Class A, B, or C (depending on bulk) of the hardbound specifications. If they are small supplementary books used with a basic textbook as extra or ancillary material, they could fall in Class F.  
7/22/72

**Question:** *Would a Handbook of English for high schools bound in soft cover be permitted under the specs?*

**Answer:** Only if it is auxiliary to the basic pupil's textbook used in the course. It would then be defined as a workbook (p. 13) and fall into Class F. If it is not an auxiliary book, and from your description your book is a pupil's textbook, it would not meet specs if soft covered. If you wish to submit the book for adoption in soft covers, you must list the covers as a deviation from specs in filing Form B.  
2/2/73

**Question:** *We have a paperbound non-consumable text which does not fall in items I–IV of the softcover specifications. Is this a Class F book, and how should we list it on Form B?*

**Answer:** This is a book which should have hard covers under the specifications. Check one of the classes A to E on Form B according to the bulk of the book. File for a deviation for the cover on page one of Form B following the last paragraph, and sign warranty three on page two of Form B.  
7/23/73

**Question:** *We have charts on the inside front and back covers of a paperback. The non-consumable softcover text specs do not state that instructional material on the covers must be repeated in the text. Can we put them on the covers only?*

**Answer:** No. Specifications which are not inherent in the style of binding must be followed on softcover texts as well as on hardbound books. These would include use of the uniform label, copyright page, instructional material on endsheets, specs on page 17, etc.  
7/28/75

**Question:** *Printed material on endsheets that contains instructional material must also be printed in the text. Does this apply to the inside pages of the cover of a non-consumable softcover text?*

**Answer:** Yes.  
7/25/77

**Question:** *We are publishing non-consumable softcover texts that will consist of eight units for each grade. The trim size is 8" x 10" and they fall into Class AA. We would like to three-hole punch these books so that the students may keep each unit in a three-ring binder along with their notebook. Teachers feel that it will preserve the life of the unit. May this be done?*

**Answer:** There is nothing in the MSST that disallows the use of punching of three holes along the back of the book, which would not weaken the binding of this relatively thin class AA saddle-stitched book in any way. The punching, however, must not obliterate any part of the text page other than decorative illustrations that may fall in the back margin of the book, or any portion of the bar code or ISBN that appears on the back cover of the book.

**Question:** *Is a three-piece hard cover permissible under the specifications?*

**Answer:** Yes. There is no specification requiring that covers must be made from one piece of material. The material for the back and the sides must each meet the cover material specifications on pages 49–53.

**Question:** *We are publishing a high school textbook that must meet MSST specifications. We should like to print on the back cover of the textbook information about the book and the author. Is this allowed?*

**Answer:** There is nothing in the MSST that restricts the information that may be printed on the cover of a hardbound textbook. Therefore, information about the book and the author would be allowed.

**Question:** *Is it a requirement of the MSST that books be manufactured in the USA?*

**Answer:** There is no requirement in the MSST that books be manufactured in the USA, only that the published MSST specifications be followed.

## Explanation of Tests: Hardcover Texts

### Introduction

The following are non-technical explanations of tests used to qualify various materials for use in those hardcover texts that must meet the specifications required in this book. They are in alphabetical order and cross-referenced by listing the page(s) where the test is specified.

The terminology used is intended to give textbook administrators and others a greater understanding of how specifications are developed, how they are used, and what they mean. All the tests are from recognized TAPPI Standards (Technical Association of Pulp and Paper Industry), Federal Test Method Standards, ASTM (American Society for Testing Materials), and U.S. Commercial Standards (Bureau of Standards).

### Test Explanations

#### **Abrasion Resistance** (Stoll) (pp. 50 to 53)

This test measures the ability of a product to resist surface wear due to rubbing action

The greater the number of cycles on the test apparatus before break-through, the more rub or abrasive resistance the product has.

#### **Blocking Resistance** (pp. 77)

This test method is used to predict the resistance of two specimens placed face to face (or back to face) from “sticking” to each other. The specimen is subjected to heat and pressure similar to what one may find in a warehousing or other storage situation. The test originally was designed for cloth. It has application in the Type I, Type II, and Type III hardcover and softcover areas as well. The test standard as now written calls for no blocking or sticking to occur. This means that when the two are separated, both surfaces will be clean.

**Breaking Load** (board) (pp. 48, 79)—The breaking load for cover board is the amount of effort, measured in pounds, required to break a specimen. A tensile tester, with a flexural loading device, is used. A load is applied to the sample at a controlled rate of speed. The higher the number recorded in pounds at the point of breaking, the stronger the board according to this test method. Higher minimum values are established as the board gets thicker. Also, while the breaking load test is being performed, the amount of deflection to point of rupture is being recorded. See Item No. 11, below, Deflection at Rupture.

#### **Breaking Strength** (cloth and non-woven) (pp. 52, 53, 75)

This represents the force required in pounds per inch to break or rupture a test specimen. A testing instrument, such as an Instron, is utilized to provide an even strain on a sample which is clamped between a fixed and a moveable jaw. The machine, moving at a fixed speed, breaks or ruptures the specimen. The tension needed is recorded in pounds/inches on a dial, chart, or scale. The higher the number recorded, the stronger the product is according to this test. A total figure of both (perpendicular) dimensions is also used. This figure is usually higher than the total of the minimums for the two directions.

#### **Breaking Strength** (thread) (pp. 38, 80)

The amount of strength measured in pounds, to break a single strand of thread

#### **Brightness Test**

Brightness is the result of a paper’s ability to reflect light as contrasted to absorbing or transmitting it. The more light reflected, the brighter the sheet. Brightness, as a quality, contributes to the overall contrast to the printed material and, therefore, makes it more attractive to the reader. A lack of brightness, on the other hand, makes the sheet look dark and less attractive. A freshly prepared magnesium oxide block is considered to have 100 percent brightness and is the standard to which a particular paper is compared. The comparison is made on a brightness meter, and the results are expressed as a percentage of the reading of the magnesium block. The higher the number, the brighter the sheet.

**Bursting Strength** (board) (pp. 48, 78)

This test, performed on a **heavy-duty** Mullen Burst Tester, measures a combination of bonding strength of the fibers and fiber length, with bonding strength being the more significant factor. The higher the number, the better the bond. See Item No. 8, below, for a further definition of the test and test method.

**Bursting Strength** (pp. 27, 32)

This is performed on a Mullen Burst Tester and measures a combination of bonding strength of the fibers and fiber length, with bonding strength being the more significant factor. Bursting strength is best defined as the amount of pressure in pounds/square inches required to rupture the specimen, when such pressure is applied at a controlled increasing rate through a rubber diaphragm to a circular area. It is largely determined by tensile strength and elasticity of the paper and is most meaningful when used in conjunction with other measures of bonding. The higher the number, the better the bond.

**Cover Coating Test** (p. 63)

The test is performed to determine the amount of resistance the protective top coating has to an abrasive action. The printed and coated sample is subjected to a rotary rubbing action on a Taber Abraser under a prescribed load (weight) and abraser wheel. The coating's ability to resist destructive wear gives an indication as to how well it might hold up under actual use. Generally, the higher the number of cycles before wear is apparent, the more durable the coating.

**Crocking** (pp. 70, 76)

Measures the amount of resistance a cloth has to transferring coloring to a special piece of cloth (crock cloth). Run on a Crockmeter, it measures the amount of transfer of colored matter—whether dye, print, impregnated, or other coloring. The resistance to transfer, whether run wet or dry, is considered an attribute. The results are reported after making a visual observation against a standard.

**Deflection at Rupture** (board) (p. 78)

This test gives a measurement, in fractions of an inch, of the amount of deflection (bending) a cover board can take before breaking or rupturing. A recording device is used to measure the deflection at the same time the breaking load (Item No. 3, above) is being checked. Minimum values have been established for both lengthwise and crosswise direction to assure a certain amount of flexibility before the board breaks.

**Elmendorf Tear** (p. 27)

This test measures the average force in grams required to tear a single sheet of paper after the tear has been intentionally initiated. In doing so, it measures fiber length and also the bonding strength of the sheet. The higher the test value measured in both machine direction and cross direction, the greater the tear resistance.

**Elongation** (pp. 53, 70) (also see Breaking Strength)

At the same time breaking strength is being recorded, elongation can be measured. Elongation, or the stretch in the specimen, is measured up until the breaking point, or maximum tensile of the specimen. The elongation is expressed as a percentage of increase in length of the specimen. It is desirable and necessary to have some stretch, but it must be limited to adequately serve its end purpose.

**Folding Endurance** (pp. 41, 97)

The MIT Fold Test establishes, as a logarithm of the number of double folds required to break a test specimen under standard conditions, an objective assessment of paper durability. Strength retention is particularly important for endsheet and cover material components, which must withstand extended rigorous daily use. The MIT fold is currently the most accurate, and generally available, fold endurance test.

**Gloss Test (p. 27)**

This test, performed on various types of gloss-meters, gives a measure of the amount of light reflected back from the surface of a sheet of paper. High-gloss papers can be objectionable for reading matter because of a glare problem. For this reason, MSST has established a **maximum** gloss level for all body papers, except inserts. The higher the number, the glossier the sheet. For example, the gloss meter using TAPPI Method T-480 operates by shining a known light source at a predetermined angle onto the stock to be tested.

**Moisture Content (p. 47)**

This is the percentage of water, by weight, in a given stock. The proper moisture content in a binder's board is an essential element in insuring the manufacture of flat cases.

**Opacity Test (p. 27)**

Opacity is the measure of a paper's ability to hide, show-through or conceal from view what might be printed on the other side of the sheet or an adjacent sheet. High opacity is desirable because it will lessen possible confusion and eyestrain on the part of a student. Opacity is measured on an opacimeter by a contrast-ratio method and is numerically expressed as a percentage. The higher the number, the opaquer the sheet, and, therefore, the greater its hiding power.

**Stability to Light (pp. 50 to 54)**

This method is used in determining the color fastness of the specimen when exposed to a light source. The sample is subjectively evaluated and rated good, fair, or poor. A fair rating would indicate an appreciable, but not objectionable, change in color. The test gives an indication of how the specimen may be affected when exposed to various forms of light under normal usage.

**Tear Strength (cloth and Type I, II, and III non-wovens) (pp. 30, 50, 95)**

This test measures the average force in grams required to tear a single sheet after the tear has been intentionally initiated. The higher the test value, measured in both directions (warp and fill for cloth and MD/CD for Type I, II, and III non-wovens), the greater the tear resistance. The ability to resist further tearing would be considered an attribute.

**Tensile Strength (pp. 34, 52, 53, 58)**

This is a measurement of the force required to break a given sample. As such, it can be useful in predicting the endurance of the end product in actual use. Samples are cut to specified lengths and widths according to the test method employed. The sample is clamped in the jaws of one of many tensile testing machines available. Tension is applied at a predetermined rate until failure occurs. The higher the unit value reported, the greater the tensile strength. The test, using the proper equipment and method, has application for paper as well as supers, drill, twill, and joint muslin.

**Thread Count (pp. 50, 58)**

A test method employed to determine the number of yarns (threads) per inch in a woven cotton cloth. Yarns are counted in both the warp and fill direction from five specimens in each direction and averaged together. To fall within a certain class, i.e., B, C, C-1, the cloth must meet a minimum thread count. Generally, as the cloth goes up in class, the yarns become heavier and, therefore, the minimum per inch goes down numerically. It should be noted that many other requirements must be met to satisfy the classification.

**Water Spotting Resistance (pp. 50, 52, 53)****Weight of Greige (also known as Gray) Goods (p. 51)**

Gray goods is the woven cotton fabric as it comes from the mill. The weight, expressed in ounces per square yard, is of special interest to the convertor of the gray goods. Minimum weight per square yard insures the gray goods (cloth) meets the minimum class specification. As the class of cloth goes up, the weight per square yard goes up.

## Explanation of Tests: Non-Consumable Softcover Texts

### Introduction

The following are non-technical explanations of tests used to qualify various materials for use on Non-Consumable Softcover Texts. They are in alphabetical order and cross-referenced by listing the page(s) where the test is specified. In these definitions, the approved definitions of non-wovens by type are used:

Type I—Paper: Natural cellulose fiber webs

Type II—Reinforced Paper: Polymer or resin-reinforced cellulose fiber webs

The terminology used is designed to give textbook administrators and others a greater understanding of how specifications are developed and what they mean. All the tests are from recognized TAPPI Standards (Technical Association of Pulp and Paper Industry), Federal Test Methods, and ASTM Standards (American Society for Testing Materials).

### Test Explanations

#### Aging Resistance (p. 49)

The purpose of including aging resistance is to provide some guide to why materials with limited permanence or longevity were not allowed. No attempt is made to predict archival quality because present test methods simply are inadequate for this purpose.

**pH Value**, as used in the specifications, is a measure of the acidity or alkalinity of Type I materials. Seven is considered neutral and is the pH of pure (distilled) water. Values below seven indicate a sheet to the acid side and values above seven to the alkaline. It is recognized by TAPPI that high acidity has a very harmful effect on the permanency of Type I materials. For example, fold strength, as a percentage, falls off more rapidly in a sheet with high acid concentration after forced (in an oven) aging when compared to a similar sheet with a lower acid or an alkaline concentration.

**Aging Resistance**, used for Type II materials only, was selected to eliminate those covers which have reinforcing materials of limited longevity. The forced aging by a controlled amount of baking in an oven, while not designed to predict archival quality, will disqualify products that may tend to discolor, crack, or otherwise lose their durability with time.

#### Blocking (p. 64)

This test method is used to predict the resistance of two specimens placed face to face (or back to face) from sticking to each other. The specimen is subjected to heat and pressure similar to what one may find in a warehousing or other storage situation. While the test originally was designed for cloth, it has application in the Type I, Type II, and Type III hardcover and softcover areas as well. The test standard as now written calls for no blocking or sticking to occur. This means that when the two are separated, both surfaces will be clean.

#### Brightness Test

Brightness is the result of a paper's ability to reflect light as contrasted to absorbing or transmitting it. The more light reflected, the brighter the sheet. Brightness, as a quality, contributes to the overall contrast of the printed material and, therefore, makes it more attractive to the reader. A lack of brightness, on the other hand, makes the sheet look dark and less attractive. A freshly prepared magnesium oxide block is considered to have 100 percent brightness and is the standard to which a particular paper is compared. The comparison is made on a brightness meter, and the results are expressed as a percentage of the reading of the magnesium block. The higher the number, the brighter the sheet.

#### Burst Test—Mullen (p. 27)

This is performed on a Mullen Burst Tester and measures a combination of bonding strength of the fibers and fiber length, with bonding strength being the more significant factor. Bursting strength is best defined as the amount of pressure in pounds/square inches required to rupture the specimen, when such pressure is applied at

a controlled increasing rate through a rubber diaphragm to a circular area. It is largely determined by tensile strength and elasticity of the paper and is most meaningful when used in conjunction with other measures of bonding. The higher the number, the better the bond.

#### **Cover Coating Test (p. 63)**

The test is performed to determine the amount of resistance the protective top coating has to an abrasive action. The printed and coated sample is subject to a rotary rubbing action on a Taber Abraser under a prescribed load (weight) and abramer wheel. The coating's ability to resist destructive wear gives an indication as to how well it might hold up under actual use. Generally, the higher the number of cycles before wear is apparent, the more durable the coating.

#### **Elmendorf Tear (p. 27)**

This test measures the average force in grams required to tear a single sheet of paper after the tear has been intentionally initiated. In doing so, it measures the fiber length and also the bonding strength of the sheet. In Type II, it also gives an indication of the amount of reinforcing binder used in the product. The higher the test value measured in both machine direction and cross direction, the greater the tear resistance. Tear resistance can be considered significant when dealing with saddle wire and side wire split-cover books in which the cover is pierced or torn by the wire. Its ability to resist further tearing would be considered an attribute.

#### **Gloss Test (p. 27)**

This test, performed on various types of gloss-meters, gives a measure of the amount of light reflected back from the surface of a sheet of paper. High-gloss papers can be objectionable for reading matter because of a glare problem. For this reason, MSST has established a **maximum** gloss level for all body papers, with the exception of inserts. The higher the number, the glossier the sheet. For example, the gloss-meter using TAPPI Method T-480 operates by shining a known light source at a predetermined angle onto the stock to be tested.

#### **Internal Bond Tests (pp. 47, 77, 79)**

These tests measure the amount of force needed to separate or delaminate the paper or cover stock material. TAPPI designation T-569, Scott Type is used for AA, BB and CC softcover materials and UM569 Method A or B is used for type II and type III casebound materials.

#### **MIT Fold (p. 64)**

The MIT Fold test is used to measure the ability of a product to maintain its strength after repeated folding. The test specimen is subjected to repeated 270° folds, under tension, until failure. It is meant to simulate the repeated opening and closing of a book and thereby aid in predicting what its useful life may be. The higher the number, the greater the endurance.

#### **Opacity Test (p. 61)**

Opacity is the measure of a paper's ability to hide show-through or conceal from view what might be printed on the other side of the sheet or an adjacent sheet. High opacity is desirable because it will lessen possible confusion and eyestrain on the part of a student. Opacity is measured on an opacimeter by a contrast-ratio method and is numerically expressed as a percentage. The higher the number, the opaquer the sheet, and, therefore, the greater its hiding power.

#### **Stability to Light (p. 64)**

This method is used primarily for cloth but provides some guidance for Type I and Type II softcover materials as well and aids in determining the color fastness of the specimen when exposed to a light source. The sample is subjectively evaluated and rated good, fair, or poor. A fair rating indicates an appreciable, but not objectionable, change in color. The test gives an indication of how the specimen may be affected when exposed to various forms of light under normal usage.

**Tensile Strength (p. 64)**

This test, like Tensile Energy Absorption (TEA), is performed on the Instron tester. The tensile strength of paper is the pull in pounds just required to break it and is reported in pounds/inches. The higher the value, the greater the tensile strength. Whereas the TEA is an integration of tensile and elongation, the tensile test measures only the force required to bring the sample to the point of failure. The tensile strength test is especially useful to the paper manufacturer as a control, as the test results are based upon a number of sheet and fiber parameters, such as fiber dimension and fineness, fiber strength, fiber bond strength, and relative bonded area. Favorable test results are therefore dependent on sheet structure.

**Tensile Energy Absorption (p. 64)**

This test is used to predict the endurance of the end product in actual use. The test, performed on an Instron tester, is used to measure a combination of stretch and tensile strength under load (the work—or energy—required to stretch the specimen until it breaks). A graphical recording of the stress-strain relationship results in an automatic calculation of energy absorption. The result is the total energy absorbed by the test specimen up to tensile failure (breakage). The higher the number in foot-pound/square feet, the stronger the paper. In effect, if you were to take a piece of paper, an end in each hand, and pull until the specimen broke, and were further able to measure the amount of energy expended, this would be the energy absorbed by the sheet.



## Test Conditions: Samples and Procedures

- |                            |                                |
|----------------------------|--------------------------------|
| • Cloth                    | • Protective Top Finishing     |
| • Cover Material           | • Proxylin and Vinyl Materials |
| • Drills–Twills–Muslins    | • Supers                       |
| • Inks–Foins–Stamping Leaf | • Thread                       |

### Board

All cover board shall be tested according to the Methods of Sampling and Testing outlined on page 78.

### Cover Material, Cloth

#### Test Conditions—General

For the usual routine testing in plants not equipped with humidity and temperature controls, the prevailing atmospheric conditions are satisfactory. However, should a sample tested under prevailing atmospheric conditions fail to meet any of the specific requirements of its group, or in the settlement of disputes, the material must be tested under standard conditions. Standard conditions are defined as the conditions reached by the material when in moisture equilibrium with an atmosphere having a relative humidity of 65 percent, plus or minus 2 percent, and a temperature of 70°F, plus or minus 2°F. Moisture equilibrium is considered to have been reached when, after free exposure of the material to air in motion, the change in weight in successive weighings made at one-hour intervals is no greater than 0.25 percent.

#### Sampling for Test—General

For routine testing, a sample approximately 1 ½ yards long shall be taken across the full width of the roll. The sample may be taken from any roll in the shipment. Should the sample, when tested under prevailing atmospheric conditions, fail to meet specific requirements of the group to which it belongs, it shall then be tested under standard conditions. In case the sample tested under standard conditions fails to meet the specific requirements of its group, a duplicate sample shall be taken as follows:

| Rolls in Shipment | Rolls to be Sampled |
|-------------------|---------------------|
| 1 to 3            | each roll           |
| 4 to 10           | 3                   |
| 11 to 20          | 4                   |
| 21 or more        | 20% of shipment     |

Samples shall be tested under standard conditions. The results of the tests on the individual rolls in all samples shall be arranged across the width, and the average shall be considered the actual test of the shipment.

#### Thread Count, Threads per inch—Test Procedure

Federal Test Method Standard No. 191 Method 5050

#### Weight of Gray Goods—Test Procedure

Federal Test Method Standard No. 191 Method 5041

#### Breaking Strength, Cut Strip Method—Test Procedure

Federal Test Method Standard No. 191 Method 5102

### **Resistance to Scrubbing—Test Method and Apparatus**

This test method and apparatus are described in the *Vanderbilt Rubber Handbook*, Ninth Edition, 1948: "Essentially the apparatus consists of two clamps,  $\frac{7}{16}$ " apart, which hold a 4" x 2" specimen of the material. The specimen is clamped in its long direction so that  $1\frac{3}{4}$ " of the material is crowded into the  $\frac{7}{16}$ -inch space between clamps. The clamps are moved back and forth in opposite directions on a horizontal plane for  $1\frac{1}{2}$  inches at a rate of 110 cycles per minute, which gives the scrubbing action to the specimen. Additional rubbing and abuse is accomplished by allowing a metal shoe to ride on top of the specimen within the space between the jaws. This rider is free to move up and down as the sample is distorted but is kept in constant contact with the specimen by its weight of approximately 14 ounces."

### **Resistance to Scrubbing—Test Specimen**

Five test specimens, 4" x 2", shall be cut from each sample of book cloth. The specimens shall be cut in the warp direction. A pencil line shall be inscribed on the face side,  $1\frac{3}{8}$ " from either end of the long dimension of each specimen, resulting in an area 2" x  $1\frac{3}{4}$ " in the center of the specimen.

### **Resistance to Scrubbing—Test Procedure**

Align the clamps of the scrub tester so that the ends of the clamps are exactly even. Clamps may be easily aligned by rotation of the handle provided at the end of the motor shaft. Insert the test specimen into the middle section of the clamps with each of the inscribed pencil lines at the inside edge of each clamp, so that a 2" x  $1\frac{3}{4}$ " center area of the specimen can be crowded into the  $\frac{7}{16}$ " space between the clamps. This can be done by inserting the specimen under the clamps from the right-hand clamp. Tighten the right-hand clamp. With a pencil, raise the specimen in the  $\frac{7}{16}$ -inch space between the clamps until the left-hand inscribed line is beneath the inner edge of the left-hand clamp. Tighten the left-hand clamp. By means of the handle provided on the motor shaft, bring the right-hand clamp to the extreme forward position. Lower the metal shoe onto the specimen with just enough pressure to bring the bottom of the metal shoe to the level of the specimen in the clamps, i.e., to the top of the bottom half of the clamps. (Further pressure at this time, or during the test, will damage the specimen and produce erroneous results.) Reset the counter to zero, run the machine 175 cycles, and remove the test specimen.

### **Resistance to Scrubbing—Evaluation of Test**

Place the test specimen over a strong light source and determine the percentage of fallout of impregnating material by calculating the area of light passing through the specimen, by means of the reticle provided with the scrub tester. A convenient light source is a box with a plain glass top with a 50-watt electric light bulb beneath the glass. Place the reticle on the specimen with the dimensions matching the 2" X  $1\frac{3}{4}$ " test area of the specimen. Calculate the total area of fallout by comparing the test area of the specimen to the reticle. Squares that are partially filled with light are mentally accumulated until the total is equal to one full square or more. These are added to the number of squares completely filled with light. An area equal to one square is 0.25 percent. The total sum of squares arrived at, divided by four, shall be reported as the percentage of fallout in 175 cycles.

### **Crocking, Wet and Dry—Test Procedure**

Federal Test Method Standard No. 191 Method 5651, Method B

### **Stability to Light—Test Procedure**

Federal Test Method Standard No. 191 Method 5660

Fadeometer exposure 40 hours

## **Water Spotting Resistance—Test Procedure**

A puddle of distilled water, approximately one square inch in area, shall be allowed to stand on the face surface of the sample for four hours. The water shall then be wiped off the sample and the sample allowed to dry at room temperature overnight. The sample shall then be examined for water spotting on the face and/or back, and rated Good, Fair, or Poor in accordance with the following definitions:

Good—No appreciable spotting on face or back

Fair—Noticeable spotting on face or back

Poor—Objectionable spotting on face or back

## **Blocking Resistance—Test Procedure**

Federal Test Method Standard No. 191 Method 5872 modified

This test is modified as follows:

The test specimen shall be a rectangular shape measuring 4" x 12". The specimen shall be folded so that there is a 4" x 4" contact face to face and then folded again to give another 4" x 4" contact of face to back.

## **Abrasion Resistance**

Federal Test Method Standard No. 191 Method 5302 modified

### **Abrasion Resistance—Apparatus**

C. S. I. Surface Abrader, Model C. S. 59, with rubber diaphragm having no metal contact

Abradant: 320 Aloxite cloth, E. C., 45 flex

Load: 1 lb head load and 9 lb diaphragm pressure

Rotation 100 +/-25 cycles per 360° revolution of specimen

### **Abrasion Resistance—Test Procedure**

1. Place the specimen, face up with the warp parallel with the direction of movement of the specimen as it is moved back and forth. Inflate the diaphragm to 10 lb and then reduce to 9 lb. Maintain diaphragm pressure at exactly 9 lb throughout the test. Start with fresh abradant and change abradant after each 50 cycles.
2. The end point shall be the appearance of the first break through the material, usually a small pinpoint of the black diaphragm showing through the specimen.

### **Abrasion Resistance—Test Report**

Unless otherwise specified, the results of three test specimens shall be averaged and reported as the abrasion resistance of the sample material.

## **Cover, Non-Woven: Casebound**

### **Internal bond**

UM 569, Method A or Method B

### **Internal Bond—Apparatus**

Tensile testing machine with jaw width not less than 1"

### **Test Specimens**

Method A: Cut five test specimens 1" in width by approximately 11" in length. Method B: Cut five test specimens 1½" in width by approximately 11" in length. The length direction of the specimens shall be parallel to the machine direction of the paper.

## Board

### Sampling for tests

The test sample used for making thickness, density, and bursting strength determinations shall consist of ten specimens cut 10 by 10 inches, each specimen being cut from a different board. Where a delivery consists of less than 30 bundles, not less than three bundles shall be sampled.

### Control testing

For ordinary control testing, the prevailing temperature and humidity conditions are satisfactory. In controversial cases, the specimens shall be tested at 70°F and at 50 percent to 65 percent relative humidity after being exposed to this condition for 72 hours. Such tests may be made in any accredited commercial testing laboratory satisfactory to both buyer and seller.

### Thickness

Twenty readings shall be made, two on each of the ten test specimens cut 10 x 10 inches. Each of the 20 individual readings shall not vary over 0.003 inch above or below the designated nominal thickness. In test reports, thickness shall be expressed in decimal parts of an inch.

### Density

(a) The density is computed from the thickness and weight per unit area. The latter is determined by measuring the dimensions of each of the ten test specimens used for the thickness determination to an accuracy of 0.1 inches and weighing each specimen separately in grams. The density is computed according to the following formula:

$$\text{Density} = \frac{\text{Weight of 1 test specimen in grams}}{\text{Area of test specimen in square inches} \times \text{Thickness of test specimen in decimal parts of an inch} \times 16.39}$$

(grains per Cubic Centimeter)

(b) The density of each of the individual test specimens shall fall between the limits prescribed for minimum maximum density under the MSST.

### Bursting strength

In determining the bursting strength, 20 bursts shall be made, one on each side of the ten test specimens. The average of the 20 bursts shall be reported as the average bursting strength. The average bursting strength shall not be lower than the figures given under specific requirements for the designated nominal thickness.

### Flexural properties

(a) The flexural properties shall be determined with a tensile testing machine, using an attachment by means of which a load is applied with the loading clamp to the specimen at midspan between two parallel supports three inches apart suspended from the upper clamp of the tester. The ends of the test specimen shall be equidistant from the supports. The load is applied to the board at the rate of 12 inches per minute. The load in pounds required to break the specimen is recorded as breaking load and the deflection in inches at rupture is recorded as deflection at rupture. (A recording device should be provided for convenience in measuring deflection.)

(b) Ten test specimens, one by five inches, shall be cut in each direction of the board and tested for flexural properties. Two results shall be reported for breaking load: the average of the ten tests on samples cut lengthwise and the average of the ten tests on samples cut crosswise. These averages shall not fall below the corresponding figures for breaking load given in the MSST for the designated nominal thickness. Two results shall be reported for deflection at rupture: the average of the ten tests on samples cut lengthwise and the average of the ten tests on samples cut crosswise. These averages shall not fall below the corresponding figures for deflection at rupture given in the MSST for the designated nominal thickness.

## Testing

Method A: Start delamination across width of specimen by hand as near as possible to center of the thickness of the paper. Clamp one of the separated ends in each of the jaws, the unseparated portion remaining at right angles to the direction of movement of the jaws.

Method B: Cut two strips of tape approximately 6" long. Seal the samples between two tape strips. The tape should project beyond the end of the samples by 1" in the long direction. Start separation by hand and mount in jaws of tensile tester.

### Internal Bond—Test Report

Calculate internal bond in ounces/inches and report numerical value as the average of five test specimens.

## Cover, Non-Woven: Soft Cover

### Internal bond

TAPPI 569, Scott Type

### Internal Bond—Apparatus

A Scott ply bond multiple specimen station capable of pressing five 1" x 1" samples or specimens with a pendulum mounted on a pedestal with an axle supported at two points on ball or similar low friction bearings and whose gravity is located 127 (= .06mm) from the centerline of the axel.

### Test Specimens

Cut five sample strips 1" wide by 5½" in length or 7" in length.

## Testing

Adjust and verify that the specimen presentation station exerts a pressure of 100 (= 3) psi at all positions and that semiautomatic types produce a clamp period of three seconds.

Load the tape dispenser with a roll of 1" wide double-faced pressure-sensitive tape.

Lay the bottom steel anvils in their respective positions on the preparation station and pull out a strip of tape to extend across the anvils and beyond at least 2.5 cm. Bring the tape down on the anvils between the guide pins, aligning the front edge carefully with the slot or ridge delineating the central specimen area of the anvils.

Place the strip of paper to be tested in exact position on this first layer of tape and then add a second layer of tape exactly on top of the paper specimen.

For mechanical presses, clamp the strongback in position with knurled thumb screws. Apply pressure by pulling the cam lever forward for two to three seconds. For automatic/hydraulic presses, follow the manufacturer instructions to trigger the automatic press cycle.

Unlock and move the strongback carefully, leaving the aluminum platens adhered to the specimen sandwich.

Swing the pendulum to the right until it latches. To make the test, release the pendulum allowing it to rupture the sample.

Make at least five tests in each principal direction of the paper.

### Internal Bond—Test Report

Numerical results based on foot-pounds/inches  $2 \times 10^3$  are obtained directly from the test apparatus.

### Drills, Twills, Muslins, etc.

All fabrics used, except book coverings, shall be tested according to the methods prescribed by the American Society for Testing Materials Designation D1910 and D1682. The breaking strength tests shall be by the one-inch raveled strip method, and the tests shall be made on bleached fabric.

## **Inks, Foils, Gold and Silver Stamping Leaf**

All such materials shall conform to and be tested according to established trade standards and practices and any future revisions thereof which may be approved by adopting agency.

## **Papers**

All papers shall be tested according to the official testing methods of the Technical Association of the Pulp and Paper Industry, and any future revisions thereof. For paper bulk, measurement shall be made by placing the specified number of pages to the inch under 35 pounds/square inches' pressure and the thickness determined in 32nds of an inch. A tolerance of  $\frac{1}{16}$ " in bulk is permitted to allow for commercial variation in manufacture.

## **Protective Top Coating for Lithographic Printed Covers**

All lithographed cover fabrics, both woven and non-woven, shall be tested for abrasion resistance in accordance with the following procedure:

Three samples shall be cut from characteristic areas of the coated or laminated book cover material and shall be tested for resistance to abrasion on a Tabor Abraser using the following standards:

- CS 17 sheets (rubber base) resurfaced prior to each test using Teledyne Taber refacing discs (Catalog No. S-11) for 25 cycles
- Standard weight of 500 grams for 150 cycles as outlined in Federal Test Method Standard 191 Method 5306
- Sample to be run for 75 cycles, and then
  - wheel the 2nd sample disc to be cleaned by brushing with Teledyne S-12 long handled brush and
  - continue the test to completion at 150 cycles
- Suction nozzles to be set  $\frac{1}{32}$  to  $\frac{1}{16}$  of an inch above the specimen surface with adjustable vacuum control set at 70 points on the dial (Since vacuum may vary from machine to machine, the level of vacuum setting in points may be varied to the minimum setting required to maintain a clean abrasion track.)

Sample discs should not be mounted on any type of carrier.

When so tested, there shall be no apparent wear of the imprinted image in the abrasion track.

## **Pyroxylin and Vinyl (or other) Resin-Impregnated Materials**

All pyroxylin-impregnated materials shall conform to and be tested according to the procedures set forth in Cloth, Prior to Printing, page 49.

## **Supers**

Tensile strength of all supers shall be tested and determined by the strip method. In testing tape-style supers, five tests shall be made with two tapes in the jaws, and five tests shall be made with one tape in the jaws. The average result is taken. A similar method of averaging using five samples with one tape and five samples with two tapes should be used for the thread count.

## **Thread**

All threads shall be tested by the single strand method prescribed in the American Society for Testing Materials Designation D204, and any future revisions thereof which may be approved by adopting agency.

## Interpretations to Protective Top Coating

**Question:** *An El-Hi book has a cover with a protective film laminated to the offset printed material. Are there any specifications for the material laminated to the base other than the Taber test on the image?*

**Answer:** No. The lamination becomes the protective coating, which must meet the Taber test, and is the only test required.  
7/29/74

**Question:** *We have an E-1 book litho-printed on C-1 cloth. Does the cover need to be top-coated? Is spirit varnish a proper coating?*

**Answer:** A lithographed cover must be top coated according to the specifications for the Taber test on page 63. Spirit varnish would be acceptable if it met the 150 cycles required by the test. A normal spirit varnish coating would test far below the 150 cycles required.

**Question:** *What is the definition of "no apparent wear" in the top-coating specifications on page 80? Is it one tiny spot of white showing? Should there not be visual standards supplied for reference?*

**Answer:** This is a matter of judgment. A single spot would not necessarily be caused by wear; indication that the wheel is forming a worn track would be apparent wear.  
7/28/75

**Question:** *I would like to clarify the specification requirement for abrasion for a three-piece case used on a McCain-sewn pupil's edition. The spine and side materials are standard cover materials that each meet all cover specifications as defined in the MSST, but the test performed on a section of the case containing both materials fails the test since there is increased stress along the raised edge. Does such a book meet the MSST?*

**Answer:** Yes. If the individual materials making up the three-piece cover have been liquid-coated or film-laminated to protect the offset image, and these materials meet the test standard of 150 cycles without apparent wear on the printed image, the cover is acceptable.  
7/27/92  
#174

The Taber test, performed on a circular disk about 4" in diameter and cut from the flat cover material, was never designed to give a proper reading on a raised edge including a double thickness of material. It is to be used on the flat surface of the cover material to determine the abrasion loss caused by the rotating wheels.

Therefore, if the samples are cut from representative parts of the flat material for testing, and these samples meet the test specifications, the cover is deemed to meet the MSST specification for abrasion resistance.

**Question:** *For a particular discipline, we are applying a second layer of top coating to certain areas of the textbook cover to enhance the appearance of the finished product. Is there a testing procedure that will determine if our process satisfies the requirements of the MSST?*

**Answer:** Page 70 of MSST lists cover-coating testing. The process you described would be subject to meeting or exceeding those testing requirements.  
7/21/08  
#211

# Interpretations to Textbook Specifications

## Introduction

As explained on page i, the technical director provides “technical advice to the commission or its members and answers queries from the public or members of this commission.” A summary of these answers or interpretations is submitted to the Advisory Commission at each semi-annual meeting for review and approval. Interpretations made since the March 1, 1979, revision that are effective at the publication date of this revision of “Manufacturing Standards and Specifications for Textbooks” follow. They are arranged in the same page and subject sequence as the specifications. The dates given are the dates of the semi-annual reports to the Advisory Commission. Those interpretations that appeared in the semi-annual reports or in previous editions of this book and which are omitted from this summary are obsolete or superfluous due to later clarifications of wording, changes, or additions to the specifications. Prior to 1978, interpretations were not numbered. Every attempt has been made to provide sequential numbering applicable to interpretations made after 1978.

## Page 1—Directly Affected Inventories

**Question:** *Is an order in process at the effective date of a temporary, supplemental adoption or a change in a regular specification considered “directly affected inventories on hand,” and can it be used for deliveries on an adoption?*

**Answer:** Yes. Any order placed prior to the effective date commits material to a job that is technically “in-process inventory” and is directly affected if a change is required.  
7/6/72

**Question:** *Existing inventories may be used up when there is a change of specs. We have cover stock on hand which has been used on previous printings of an adoption, but which does not meet the specs required for CC covers of the new temporary softcover non-consumable texts. Can we use it for an upcoming reprint?*

**Answer:** No. The existing inventory exemption applies only to material that has been put into process. Had the covers been printed, they could have been used. If the material in question was a made-to-order product for this book, and material had been ordered to cover the life of the adoption, it would qualify as existing inventory. However, standard paper or cover stock which is used regularly on a variety of titles does not qualify.  
7/6/72

## Pages 5–6—Form B

**Question:** *Should a Form B be filled out for a dictionary?*

**Answer:** The Form B should be filled out for a dictionary or special purpose (reference) book even though there are unavoidable deviations from *Manufacturing Standards and Specifications for Textbooks*. Lighter weight paper is permissible and is not a deviation.  
2/20/70

**Question:** *Class F books are not subject to NASTA specifications. Must Form B be filled out?*

**Answer:** Yes. Consumable softcover texts (*Specifications: c.*, p. 13) are Class F books and are subject to margins (p. 17) and use of the label (p. 18) requirements only. Workbooks, etc., are also Class F books but are not subject to any of the published specifications. The sample submitted sets the standards for paper, margins, endsheets, cover material, sewing and stitching, etc. These should be entered in the proper places on Form B.  
7/19/71

**Question:** *The classes differ in the tables on pages 28, 64, etc. What class should be used in Form B?*

**Answer:** Use the capital letters only on these pages. The numbers are subdivisions within the classes such as A-1, A-2, E-1, E-2, etc.  
2/3/75



- Question:** *If softcover is used instead of a hardcover, is the deviation for cover required in Form B the only deviation which must be listed?*
- Answer:** No. All deviations must be listed. Your book is saddle-wired instead of side thread stitched and is not reinforced at the ends as is called for by the hardcover side sewn book.  
2/3/75
- Question:** *A publisher used C or C-1 cloth for the first printing of an adopted title. May it substitute specification-grade non-woven for book cloth on reprints without filling out a new Form B?*
- Answer:** Pages 52–53 state that non-wovens “may be used interchangeably with cloth” and list Manufacturers Group B, C, and C-1 cloth. Interchangeability implies equivalency. Thus, they are equivalent under the wording on page three, and Form B need not be resubmitted in changing from a cloth to a non-woven.  
7/27/77
- Question:** *We have a 7½" X 9¼" book. Can we reduce the height to 9⅝" on a reprint? All MSST specifications are met.*
- Answer:** No. Your warranty states that all books supplied will be identical to or equivalent to the sample. You must get the approval of the adopting agency to make the change. Explain that you are not asking for the deviation of a specification.  
7/27/77
- Question:** *On the Form B of the State of California under PRINTING, in addition to the subhead Margins, there is a category requiring Trim information for the back, head, front, and foot of a book. To what does this refer?*
- Answer:** Some states require additional information to what is listed in the official Form B. California requests the trim, if any, on all sides of the book in addition to the margin specifications, so that their printer will know how much space has been allowed between pages on the film flats for the book as an aid to both manufacturing and total paper size requirements.  
7/28/86  
#148
- Question:** *May I use a non-specification cover material for sample books? The regular edition will use specification material. The book is used in high schools.*
- Answer:** A non-specification cover material may be used for the sample submitted. Form B should be filled out noting the proper specification material on the first page with an explanation indicating the deviation on the sample. Page two of Form B should then indicate that the publisher agrees to be bound under Clause Two of the warranty to which the official sample does not conform, but texts supplied will conform to the MSST.  
7/22/85  
#141
- Question:** *Is a non-conforming tip-in a deviation which must be listed and accounted for under your Form B Warranty, i.e., a necessary disclosure for a publisher to make when bidding for the sale of textbooks?*
- Answer:** If a non-conforming tip-in were to be used in a book submitted for adoption to a state requiring bids, the deviation would have to be listed on the Form B Warranty.  
2/6/89  
#159

**Question:** *We are publishing consumable softcover texts which fall into Class F of the present published specifications—i.e., sample submitted sets specifications. If the texts supplied under contract are identical to the official sample, do we check #1 or #4 under the Warranty of Publishers for submission to the adopting state?*

**Answer:** If all copies furnished under the contract are identical to or equivalent to the original sample, it is necessary to check #4 under *Warranty of Publisher*. The checking of #1 would apply only if the official sample conformed to or exceeded in every particular to the MSST and, in most cases, a Class F book, by definition, could have a completely different set of specifications than those designated under the MSST.

7/25/94  
#182

Furthermore, checking #1 might mislead the adopting state into believing that the Class F book conforms to all the listed specifications in the MSST, whereas the publisher has only followed the warranty procedures rather than the listed specifications.

**Question:** *We are reprinting a high school textbook, and we wish to change the paper for the text and substitute a different sheet in place of the original sheet used. Is it necessary to submit new samples and a new Form B if a different sheet is substituted for the original?*

**Answer:** If the new sheet conforms to or exceeds the paper specifications as outlined under “Paper Requirements—General” on page 27 of the MSST, it would be deemed equivalent to the original material and could be substituted for that material without a new Form B or new sample being submitted. On the other hand, if the new sheet did not meet all the specifications as outlined on page 28 of the MSST, a new Form B and new samples would have to be submitted to the state.

7/24/95  
#184

**Question:** *Where can you find the manufacturing specifications for grades 9–12, and how is Form B filled out to cover this? There are no specifications for paper, board, or cover material in the MSST for high school books, except for the category “sewing and stitching.”*

**Answer:** Use the same classes for specifications that are used for elementary books, namely, A, B, C, D, E, or F. In filling out Form B, check both the Class I and Class II, as well as A, B, C, D, E, or F. It has been customary to use these classifications for both elementary and *secondary* school books, except if otherwise specified in the MSST.

7/28/97  
#188

## Page 12—Definitions

**Question:** *Is supplementary material for a basic textbook which is bound separately as a saddle-wired pamphlet required to meet the Non-Consumable Softcover Text specifications?*

**Answer:** No. This is not a textbook under the definitions of page 12 but is a workbook, “an auxiliary book used in connection with a pupil’s textbook.” Thus, it falls under Class F of the specifications and its specifications are those which are used in the sample copy submitted for the adoption and which also are listed in Form B.

2/11/74

**Question:** *Do workbooks or teacher guides require the label? How does a teacher guide differ from a teacher edition?*

**Answer:** Auxiliary books such as workbooks, guides, or answer books do not require the label. A teacher guide consists of material for use of the teacher only. A teacher edition contains teaching material plus the material contained in the pupil edition. The teaching material may be annotated or an added section to the pupil edition.

2/6/78  
#16

**Question:** *We have a teacher edition now bound in Tyvec (non-spec material). We would like to bind it in Kivar 6 (non-spec material). Is this allowed?*

**Answer:** A teacher edition does not have to meet MSST specifications. Therefore, the use of Kivar 6 is allowable as a cover material since the sample submitted sets the specification. However, this does represent a change in the specifications originally submitted, and you may be required by various states to submit a new Form B and sample of the teacher edition.  
7/23/84  
#133

## Page 13—Designations, Classifications, and Specifications

**Question:** *We have a graded series in which the handbook for each grade will be divided in sections and the individual sections bound in soft covers. Is this permissible?*

**Answer:** Yes. This is a non-consumable softcover text under designation b on page 13 and is permitted as an exception from the hardcover specification under “Specifications: b. IV” on page 13. This item allows use of segmented textbooks.  
2/11/74

**Question:** *We have a textbook for one semester’s use. Can it be softcover?*

**Answer:** No. It must be less than a semester’s use to be softcover.  
2/3/75

**Question:** *How does one determine whether a book is used more or less than one semester?*

**Answer:** This should be settled between the state and publisher representatives before the bid for adoption is submitted.  
2/2/76

**Question:** *Can a non-consumable softcover book (Journalism, Grade 9) be adhesive bound? The book is Class CC.*

**Answer:** Certain Class CC books may be adhesive bound. However, a 9th grade journalism book is not among the books that may be softcover listed under “Specifications: b” on page 13. Your book must have a hard cover and may be adhesive bound if it falls under Class II of grades 9–12.  
7/26/76

**Question:** *Books for grades 4, 5, and 6 are now offered in two levels for each grade and are side-stitched. We wish to combine the two levels for each grade. Can the combined books be side-stitched?*

**Answer:** If the combined books fall into C or D (p. 36, MSST), the books may be side stitched only if permission is obtained from the adopting agency following the procedure outlined on page 36, MSST.  
7/24/78

**Question:** *How should a dictionary be designated to meet the requirements outlined on page 13 of MSST (August 1, 1982 Edition)?*

**Answer:** Since dictionaries serve as an aid, subsidiary, or auxiliary to textbooks, they fall under designation d (ancillary material) on page 13 (MSST 8/1/83). Therefore, they are Class F, and the sample submitted sets the specification.  
7/28/80  
#130

**Question:** *What is a semester?*

**Answer:** A semester is one of two portions of a school year in which the school year has been divided into two equal parts. It is referred to in the MSST under non-consumable softcover texts (p. 13), relating to the use of non-consumable textbooks for less than one semester’s use, grades 1–12.  
7/23/84  
#136

- Question:** *We are publishing a hardbound teacher’s resource book. Does it have to meet the MSST?*
- Answer:** Yes, it has to meet the MSST standards as outlined in Class F, in which the sample submitted sets the specifications. A teacher’s resource book is a teacher’s guide for teachers only and is not used by students. It is neither a textbook nor a teacher edition of a textbook and falls into the category of ancillary or supplementary material, which is Class F of the published specifications. However, each state has the option to set its own specifications and requirements for classes of books that do not fall into the specific categories set up by the MSST.
- 7/28/86  
#149
- Question:** *Is a hymnal published for use in a local church the type of book which would come within the manufacturing standards and specifications described for textbooks in the MSST?*
- Answer:** The MSST applies to textbooks, workbooks, and ancillary material used in elementary and secondary schools. The term *textbook* refers to “printed instructional material in bound form, the content of which is properly organized and intended for use in elementary or secondary school curricula.” A hymnal published for use in a local church would not come within the scope of the MSST, unless the two parties, prior to publishing, agreed to use the MSST as a standard for manufacturing. However, that would be a private agreement not subject to NASTA’s jurisdiction.
- 2/6/89  
#158
- Question:** *We have a softcover, adhesive-bound, non-consumable, first-grade reader that is part of a multi-volume series of books. Does this meet the MSST?*
- Answer:** Readers must be hardcover textbooks, and non-consumable softcover texts would not meet specifications. However, if the reader is to be used for less than one semester, the book would meet the MSST specification, since this category of books can be softcover under the specifications outlined on page 13, item IV, for non-consumable, softcover texts.
- 2/6/89  
#162
- Question:** *We have decided to turn a consumable worktext (Class F) into a hardcover text to be offered gratis one per classroom. As I understand it, even though they are gratis offerings and not one per student, they will need to meet MSST. Is this accurate?*
- Answer:** Yes, the hardcover book is subject to the MSST specifications. The process requires a publisher to submit Form B which provides for the product to be accepted by the state.
- 2/11/11  
#215
- Question:** *We are planning to produce a set of four to six softcover texts per grade level, which will replace the traditional hardbound basal textbook that we have used in the past. Each individual softcover text within each set will contain instructional material that will be used for less than one semester. Please let us know if this product meets SIMRA specifications as a softcover text.*
- Answer:** Yes. This is considered a segmented textbook and may be bound as a non-consumable softcover text under “Specifications: b. IV,” Other Textbooks for Less Than One Semester’s Use, Grades K–12 (p. 13, MSST).
- 7/22/91  
#166

## Page 17—Printing Requirements, General Endsheets

- Question:** *Must material from the text of a book which is used on an endsheet be identical in all respects with the material in the text?*
- Answer:** There is no requirement in *Manufacturing Standards and Specifications for Textbooks* that material in the text of the book be identical in all respects when it is also used in the endsheet. Thus, material shown in four colors in the text could be shown in two colors on the endsheet. The sole requirement is that if there is instructional material on the endsheet, it must be also reproduced in the text of the book.
- 7/25/70

- Question:** *Must material from the text of a book which is used on an endsheet be identical in all respects with the material in the text?*
- Answer:** There is no requirement in *Manufacturing Standards and Specifications for Textbooks* that material in the text of the book be identical in all respects when it is also used in the endsheet. Thus, material shown in four colors in the text could be shown in two colors on the endsheet. The sole requirement is that if there is instructional material on the endsheet, it must be also reproduced in the text of the book.  
7/25/70
- Question:** *Maps will be printed on the endpaper of a history text. They do not appear in the text of the book. Is this instructional material?*
- Answer:** If the maps are referred to in the text of the book, they are instructional material and must appear in the text as well as on the endsheet. If they are not referred to in the text, they are decorative rather than instructional material and need not be repeated in the text.  
7/23/71
- Question:** *What is the definition of instructional material?*
- Answer:** In the MSST, *instructional material* shall mean any printed material in a textbook intended for use in an elementary or secondary school curriculum.  
2/6/84  
#131
- Question:** *We are publishing a McCain-stitched elhi book. The glossary at the end of the book runs a page longer than the planned number of pages. May we print this page on the first page of the back endpaper?*
- Answer:** The last page of the glossary may not be printed on the endpaper and still conform with the MSST. The requirements for endpaper (see p. 17, MSST) state that no instructional material shall be printed on any page of the endsheets unless reproduced elsewhere in the book. The last page of the glossary is instructional material that is not reproduced elsewhere in the book. Therefore, it cannot be printed on the endpaper.  
7/22/85  
#142
- Question:** *We are publishing a consumable softcover text. There is instructional material on the inside back cover. Does it need to be duplicated in the body of the book?*
- Answer:** Yes. Instructional material printed on the inside back cover must be reproduced in the text of a consumable book. A consumable textbook is a self-contained textbook intended to be written in and completely consumed (p. 13, MSST). Although it does not have to meet the printing, paper, binding and cover specifications for hardcover and non-consumable textbooks, it does have to meet the label and margin specifications of textbooks, as well as other non-material requirements.  
2/3/86  
#144
- Question:** *Could a table that is reproduced on the endpaper of a textbook be used if it was printed in parts throughout the book rather than in its entirety in one location in the book?*
- Answer:** Instructional material may only be printed on the endpaper if it is reproduced in the book. There is nothing in MSST that precludes this material from being printed in parts throughout the text as long as these separated sections make up the entire table.  
2/3/86  
#145
- Question:** *We have printed and bound a stitched book that has material on page iii of the front endpaper that should be removed. Is it permissible to remove this leaf?*
- Answer:** No. A book must have normal endpapers.  
2/2/81  
#123

**Question:** *May you have promotional or marketing content on any of the endpapers of a student edition and still meet MSST/NASTA specifications?*

**Answer:** No. Promotional/marketing content does not fall into the category of acceptable end sheet items (p. 17 of MSST). Inclusion of such material would be considered a deviation.  
10/15/08  
#212

**Question:** *We have a website that we want to direct students to and aid them in their studies. May a decorative endpaper direct them to the website and include a PIN code to access the website? Could this be construed as content if the website instructions also appeared in the book?*

**Answer:** The use of endsheets as described in your inquiry does not fit the current MSST criteria (p. 17 of MSST). While the MSST is silent on book block content, it is fairly direct in defining and limiting that information permissible on endsheets. So, inclusion of materials as described by your inquiry is considered a deviation (see Form B instructions on how to address a deviation should you elect to pursue).  
10/30/08  
#213

## Margins

**Question:** *What are the margins required for pictorial material (i.e., pen and ink sketch with caption)?*

**Answer:** Pictorial material or sketches with captions may appear in the margin up to ¼" from the trimmed edge.  
2/2/70

**Question:** *What constitutes a marginal note: design, content, or placement? Can a marginal note appear ¼" from the gutter fold (back margin) or ¼" from the outside edge (front margin)?*

**Answer:** A marginal note is determined by placement. It is any subject or design that is completely or partially printed within the text margin of a page or extends from the body of the text page into the margin area. As a marginal note, it may extend up to ¼" from the gutter fold or stitching, or ¼" from the trim area of the head, foot, or front of a page except for bleed-type illustrations.  
7/27/98  
#193

**Question:** *May text type of a book of teaching illustrations which consists of a few paragraphs per page be treated as captions or legends and printed up to ¼" from the end of the page?*

**Answer:** No. The text page of a book must meet the margins requirements given on page 17 of the MSST.  
2/2/72

**Question:** *May the printed matter in illustrations such as latitude numbers and names in maps, box headings in pictorial charts, and so forth, print up to ¼" from the end of the page?*

**Answer:** Yes. The margin specifications state "no less than ¼" net margins." They also state that maps are not a part of the text page. Such items as latitude numbers, place names, etc., are integral parts of a map.  
2/2/72

**Question:** *What inside margin is required from text to perforation of a tear-out page? We plan to use ¾".*

**Answer:** There is no specification for such a margin. Since the margin from text to stitch in a side-stitched book is ¾", your margin would be adequate.  
2/2/72

**Question:** *May the key letters at the head of a dictionary page be considered marginal notes and stick up into the head margin?*

**Answer:** Yes.  
7/23/72

**Question:** *Is it OK for a running foot to be included in the foot margin of a page?*

**Answer:** Yes.  
7/28/75

**Question:** *Is the index of a casebound McCain-stitched book required to meet text margins on page 17?*



**Answer:** Yes.  
2/2/76

**Question:** *Some side-stitched books are sewn in the round. Back margins of thick books are appreciably less at the center of the book than at the front and back. Is this OK?*

**Answer:** Yes, provided the smallest inside margin at the center is no less than  $\frac{3}{4}$ ".  
7/25/77

**Question:** *What are the margins for a workbook? Must they meet the specifications given on page 17?*

**Answer:** Workbooks are not required to meet specifications. (See page 2—Interpretations— Form B—dated 7/19/71.)  
2/6/78

**Question:** *On page 17 of MSST, only foot folios are allowed to fall in the margin. Is it OK to have a head folio in the margin as long as a net margin of  $\frac{1}{4}$ " remains?*

**Answer:** Yes.  
10/2/79  
#108

**Question:** *Should the bottom margin be measured from the base line or from the bottom of the descender?*

**Answer:** Measure from the base line.  
2/4/80  
#113

**Question:** *We are planning to publish a consumable softcover elementary textbook which will contain questions or problems with rules on which the pupil is expected to write his answers. My question concerns those write-on lines and whether they might extend beyond the text block proper and into the margin so long as they are kept at least one quarter inch from the trimedge.*

**Answer:** On page 82 of the MSST (Question 7/19/71), a ruling was made that consumable texts, although Class F, are subject to the margin requirements stated on page 17 (now also on page 59). Since these original margin specifications were set up, there have been many technological changes in printing and binding equipment as well as in the publisher's product. At present there is little danger that any material will be trimmed if a minimum margin of  $\frac{1}{4}$ " is allowed. Your question is well-stated, and we rule that in consumable texts, student write-on lines may extend to within  $\frac{1}{4}$ " of the trim of the page.  
7/26/82

**Question:** *We are publishing a book in which there is a logo in the head margin, in which the student fills in his name. Is this permissible if the net head margin to the logo is not less than  $\frac{1}{4}$ "?*

**Answer:** Yes, this is permissible. The logo would fall in the same category as marginal notes, illustrations, and captions, which are not considered part of the text pages. However, MSST does require a net margin of at least  $\frac{1}{4}$ ".  
7/28/86  
#147

**Question:** *We are publishing a softcover, consumable, adhesive-bound text. What are the minimum back margins which should apply?*

**Answer:** Consumable softcover texts fall into Class F of the present published specifications in which the sample sets the specifications but are subject to the margin specifications (pp. 17, 59) and the use of the label (p. 18) as designated in the MSST.  
2/2/87  
#150

For adhesive-bound, consumable, softcover texts, the back-margin specifications should not be less than  $\frac{5}{8}$ ". This information is listed under specifications for non-consumable softcover texts (p. 59) but should be used for consumable texts as well.

**Question:** *What are the minimum allowable front margins for a junior high school McCain-sewn book for the following two situations:*

- 1. For a recurring title or side head printed within an outside tab?*
- 2. For marginal notes appearing within the outside front margin?*

**Answer:**  
2/5/90  
#164  
In regard to a recurring label or side head which appears within a tab on the front margin of a junior high school book, this side head is not considered part of the text page. Therefore, a minimum of ¼ " net margin is permitted for the recurring head. Regarding the marginal notes which appear in glossary form within the outside front margin of the pages of this book, these marginal notes also are not considered part of the text page. As a result, a ¼ " minimum net margin is permitted here as well.

**Question:**  
*1. What are the margins on non-bleed illustration in reference to allthree trim edges as well as the back margin?*  
*2. Must bleed-type illustrations on a side-stitched book extend beyond the stitching, or may they end at the stitching?*

**Answer:**  
2/3/90  
#170  
1. Non-bleed illustrations are not considered a part of the text page and may be printed within the margin area on all sides of the text page, but no less than ¼" net margin is permitted on any except bleed-type illustrations.  
2. Bleed-type illustrations on a side-stitched book may end at the stitching. There is no requirement for them to extend into the gutter beyond the stitching.

**Question:** *Are running heads part of the text page?*

**Answer:**  
7/28/97  
#190  
No. Running heads are not part of the text page and, as such, are not subject to the regular margin specifications but cannot be less than ¼" from the trim. They would be treated the same as foot folios, line numerals, and extended side heads.

**Question:** *We are producing a book with the foot folio ¼ " from the trim at the bottom of the page. In so doing, we have a variation of plus or minus 1/16" due to normal variation of the press equipment. The MSST allows for such a variation of the back margin but is silent regarding the other margins of the page. Would the variation be allowed on the foot margin as well as the back margin?*

**Answer:**  
7/27/98  
#191  
Yes. A variation of plus or minus 1/16" for foot folios would be allowed within the intent of the original wording of the section on Margins (pp. 17, 61, MSST), since all margins, back, front, head, and foot are subject to the same normal variations of a sheet or web folder.

## Bar Code

**Question:** *Is a bar code and ISBN required on the back cover of all books, or is this at the option of the publisher?*

**Answer:**  
2/3/92  
#171  
A bar code and ISBN is required on the back cover of all books manufactured to the MSST. Under the new wording adopted by the MSST committee on July 22, 1991, a Bookland EAN bar code and full ISBN shall be printed on the back cover. This specification shall be effective with all revisions and new editions carrying a 1993 or later copyright.

**Question:** *Is the Bookland EAN bar code required on ancillary material?*

**Answer:**  
7/27/92  
#172  
No. The new specification requiring a Bookland EAN bar code to be printed on the back cover on all new editions or revisions carrying a 1993 or later copyright is optional on ancillary material or workbooks. Since ancillary material falls into Class F of the present published specifications, whereby the sample submitted sets the specification, whether or not to print a bar code on the back cover of the book is the publisher's option.



## Miscellaneous

**Question:** *Do the specifications permit setting text material ragged right?*

**Answer:** There is no specification covering this. Either ragged right or justified complies.

2/2/71

**Question:** *What specifications govern type size, length of line, or typographic format?*

**Answer:** Except for margins, there are none.

7/25/71

**Question:** *We wish to use a dark brown ink for printing the text of textbook. Is this permitted under the specs?*

**Answer:** Yes. There is no specification for the color of ink of the text of a book.

2/2/73

**Question:** *Are folios required on all pages, or can they be omitted on some pages? If omission is permissible, what is the maximum which can be omitted?*

**Answer:** There are no specifications on folios except for margins where foot folios are not considered part of the text page. The number omitted is entirely at the discretion of the publisher.

7/23/73

**Question:** *Are there any specifications for the width between columns of a two-column book?*

**Answer:** No. It is up to the publisher's discretion.

7/25/75

**Question:** *Must a book be printed and bound in the USA to satisfy the MSST?*

**Answer:** No. There is no requirement in the MSST that indicates a book must be printed and bound in the USA.

2/14/94

#180

## Page 17—Copyright Page

**Question:** *Is it acceptable to put the copyright information on the inside front cover of a non-consumable pupil's edition, below the state label?*

**Answer:** It is accepted that the copyright page is positioned within the book block and contains that information outlined on page 17 of the MSST. This includes ISBN and printing symbol information which are instructional as well as required. Therefore, while such information could be on the endsheet (inside front cover), it must also be reproduced elsewhere in the book. This would seem to negate the desire to place the c/r on the cover. Some examples of what is not considered part of the curriculum are listed on pages 17 and i of the MSST.

7/24/00

#197

**Question:** *Must a publisher submit all books under a contract with the same printing symbol on the copyright page to satisfy the publisher's warranty to supply books identical to the official sample?*

**Answer:** No. A publisher is required to supply the most recent printing of an edition which is identical to or the equivalent of the official sample submitted with the warranty. The printing symbol identifies the specific printing. The ISBN printed on the copyright page protects the users from not receiving the same edition originally adopted throughout the period of the contract, unless otherwise agreed to between the state and the publisher.

7/28/97

#189

**Question:** *Is there a restriction or guideline as to the preferred location of copyright material in pupil textbooks?*

**Answer:** The copyright page and pertinent information defined on page 17 of MSST shall be located either as part of the title page or the page immediately following the title page on all textbooks, ancillary material, and workbooks. See pages nine and ten, MSST for further definition.  
8/01/06  
#209

## Page 18—Uniform Label

**Question:** *Does a paperbound consumable textbook require a label?*

**Answer:** Yes.  
7/25/71

**Question:** *Is a label required in a teacher's manual for an audio-visual film strip?*

**Answer:** No.  
7/25/71

**Question:** *We are planning to use two entry lines for all labels in consumable texts and reduce the height of the label by the seven lines saved. Is this OK?*

**Answer:** Yes. Two lines are OK for consumable texts. The height of the label may be reduced by the seven lines saved so that the label will be  $4\frac{5}{8}$ " x 4".  
7/26/72

**Question:** *May a colored endsheet be used on which to print the uniform label?*

**Answer:** Yes. The label must be printed in black ink, but no specification has been set up for the color of the endsheet paper. The specification "Color: White" on page 27 applies to text paper only.  
7/23/73

**Question:** *Does "facsimile" in the label definition mean that we may use a different typeface or format, provided all material in the label is set forth in the same order and type size used in the label on page 18?*

**Answer:** No. It must be an exact facsimile, a photographic copy.  
7/23/73

**Question:** *Can the state label be pasted on the inside cover as a label or must it be the size of the full endsheet?*

**Answer:** It may be pasted on as a label as long as the entire reverse side of the label is solidly attached and the label is no larger than  $4\frac{5}{8}$ " x  $6\frac{1}{4}$ ". It cannot be tipped on at an edge or at the corners.  
2/2/76

**Question:** *In a basal reading program, consumable readers K through 8 are each used two or three weeks (less than a semester). These books are the basic texts of the program. Must each of the several books used per semester contain the uniform label?*

**Answer:** Yes.  
2/2/76

**Question:** *Each book of a series of softcover texts is printed in different colored text type. Can the label be printed in the same colored ink as the text?*

**Answer:** No. The label must be in black ink. Request deviation in Form B. Note that use of black ink requires printing the cover in two colors rather than one.  
7/25/77

**Question:** *We are revising a college dictionary for use in high school. At present there is text on the inside front cover, which raises the following questions regarding the placement of the label:*

1. *Is it a requirement that the uniform label be printed on the inside front cover?*
2. *Can a uniform label be affixed to the front endsheet?*
3. *Can a self-adhesive label be provided to the purchaser to allow him to place the label where he would prefer in order to keep the information provided on the inside cover intact?*

**Answer:**

7/22/91

#168

1. No. A dictionary is an auxiliary book and falls under the classification "4. Ancillary material" (p. 13). Therefore, dictionaries are classified as Class F, in which the sample submitted sets the specifications. Ancillary materials, workbooks, etc., do not require the uniform label.
2. Yes. If a publisher chooses to affix a label to the front endsheet of an ancillary book, he is free to do so, but it is not required.
3. Yes. A self-adhesive label can be placed on the front endsheet of an ancillary book, but the entire reverse side of the label must be solidly attached. The purchaser may place this on page two or three of the front endpaper of the book at his option in order to keep the information provided on the inside front cover intact. Theoretically, he may place it anywhere in the book since the sample sets the specification, but we would suggest that it be confined to page two or three of the endsheet so that the label would be as close as possible to its traditional placement for ease of location in the schools.

**Question:** *We are publishing a non-consumable text with a trim size of 5 ¾" x 6 ½". May we reduce the size of the label by deleting some lines or as a reduction in size from its regular size of 4 5/8" x 6 ¼" so that we can print a copyright notice on the inside front cover with the label?*

**Answer:**

2/3/92

#169

The Uniform State Label may not be reduced in size or have any lines deleted unless the trim size of the book is equal to or smaller than the label. Since the trim size of the book is larger than the size of the label, the label may not be reduced inside or have some of the entry lines eliminated.

**Question:** *We want to print the endpapers of the pupil's edition of a textbook in two colors; the end-sheets printed a PMS color, and the USL background as a tint of the PMS color. The uniform state label would be printed in black. Is that permissible?*

**Answer:**

7/27/92

#173

There is no restriction on the use of a PMS color for endpaper as long as the uniform state label is printed in black. There is also no restriction in use of a tint of the PMS color as the background color of the USL, but we would suggest that it be light enough not to interfere with the handwriting that would appear on the label.

**Question:** *We are manufacturing Classes AA, BB, and CC non-consumable textbooks. Is the state label required on the inside of the front cover? Further, can the label be overprinted onto a design such as an overall screened-down pattern?*

**Answer:**

7/26/93

#177

The state label is required on the inside front cover of non-consumable textbooks, Classes AA, BB, and CC. The label must be printed in black ink. However, it may be overprinted onto a design such as an overall screened or tint pattern in any color. Care must be taken, nonetheless, that the overall pattern is light enough so that it does not interfere with the legibility of the names of the students written on the label.

**Question:** *Do teachers editions still require a state label?*

**Answer:**

7/23/01

#202

No. In 1996, the requirement to include the Uniform State Label (USL) in teacher editions was eliminated from the MSST.

## Page 28—Paper Requirements, General Color

**Question:** *May colored paper be used as text paper?*

**Answer:** No. Text paper must be a shade of white.  
2/2/72

**Question:** *1. We have 32 pages of printed matter which we wish to stand out from the rest of the book. May we print this on colored paper?*  
*2. If we cannot use colored paper, may we print an overall tint on the page and overprint this with the black text type?*

**Answer:** 1. No. White paper must be used.  
7/23/73 2. Yes. There are no specifications on color of inks, method, or type of illustration used.

**Question:** *We are planning to publish a program of segmented non-consumable softcover texts. The back section of each student book is a compendium of reference material and is to be printed on buff paper, so it will stand out from the white lesson pages. Can buff paper be considered a “shade of white”? Or, to comply with MSST, must we print an overall tint on white paper to achieve the same effect?*

**Answer:** Buff paper is not necessarily a “shade of white” but may be a color in itself.  
2/14/94 Words are often inadequate as descriptions of color. Your purpose in using the buff is to have it stand out from the white pages, and as such, it could hardly be a shade of white where the difference in color would be marginal. Therefore, you should print an overall tint on the white paper to better achieve the effect that you desire and still conform to the white paper requirement.  
#178

## Gloss

**Question:** *We have 32 pages of illustrations that should be printed on higher gloss paper than the text to reproduce properly. May we use gloss paper and heavier ream weight?*

**Answer:** Yes, to both questions. Gloss specs do not apply to paper used for illustrations which are bound in as inserts or as a separate signature. Weights given are minimums. Use of heavier weights than those specified is permissible.  
2/2/72

## Grain

**Question:** *What specifications apply to the directions of the grain of the paper on web and sheet-fed offset presses?*

**Answer:** There is no specification for grain direction of any offset print book. Web offset or sheet-fed offset books may be printed either way of the grain, except for adhesive-bound books.  
2/2/70

**Question:** *Can a 60-lb offset paper be run cross grain?*

**Answer:** Any offset job can be run either way of the grain.  
7/25/70

- Question:**
1. "Opacity" is specified as "not less than x percent" for a given basis weight of paper. Does this limit apply to individual test points, the average for a reel (unit of production off the paper machine), or the average for a production order?
  2. "Tearing Strength" is specified as "minimum average in each direction" for a given basis weight of paper. How do you define "minimum average in each direction"?
  3. "Bursting Strength" is specified as "not less than x points" for a given basis weight of paper. As in Question 1, does this limit apply to individual test points, the reel average, or the order average?

- Answers:**  
7/26/99  
#195
1. "Opacity" is specified as "not less than x percent" for a given basis weight of paper. This would be the average figure for a production order, understanding that the test specimens should include at least five representative samples of a lot of paper.
  2. "Tearing Strength" is specified as "minimum average in each direction" for a given basis weight of paper. The average reading of the tear strength should be the average of the ten representative samples selected for each principal grain direction of the paper, and that minimum average applies to both the MD and CD test results of a production order.
  3. "Bursting Strength" is specified as "not less than x points" for a given basis weight of paper. Just as in items one and two, the average figure applies to a production order. For this, twenty representative samples are required.

The guidelines of TAPPI T400 should be followed in sampling and accepting a lot of paper for all the above tests.

**Question:** *Does the use of recycled paper in a textbook conform to the MSST?*

**Answer:**  
7/26/99  
#196

Paper used in a textbook must meet the standards and tests listed on page 28 of the MSST. Whether the paper is manufactured from recycled fibers is immaterial, as long as it meets the above-mentioned standards.

**Question:** *If a text paper meets all the individual characteristics and attributes as required by SIMRA, but the basis weight is lower than specified, is this paper acceptable to be used in approved textbooks?*

**Answer:**  
3/5/07  
#210

No. Basis weight of text paper is a prime identifier and measure for acceptance in MSST (p. 28, Form B, etc.). A tolerance guide (p. 28) is provided for certain products such as a dictionary or special purpose (reference) book. However, paper, as described in your inquiry, for textbooks would be a deviation.

**Question:** *A couple of printers have been talking to me about a 40-lb sheet that has "some" groundwood in it. Does this meet MSST specs?*

**Answer:**  
3/2/11  
#216

MSST specifications do not preclude the use of groundwood fiber in paper. The requirement for any paper is that the paper must meet or exceed the specifications for the paper listed in the MSST.

## Tolerance

**Question:** *We have a H.S. dictionary which must be printed on 33-lb paper to avoid excessive bulk. Is this permissible?*

**Answer:**  
2/2/72

Yes. This is permitted as stated in the third paragraph of page 28. Explain in Form B (p. 5) that to maintain reasonable bulk and because of the nature of the book (reference), 33-lb paper has been used as permitted on page 28. This is not a deviation from specifications.

## Page 28—Paper Requirements, Paper Weight by Class of Text

**Question:** *Class F books are not subject to paper specifications set forth for Class A–E books. What paper may be used?*

**Answer:** There are no specifications for paper used in Class F books. The sample submitted becomes the specified paper.  
7/23/71

**Question:** *65-lb paper proposed for a Class B textbook is less than 92 percent but over 90 percent in opacity. 45-lb paper with 90 percent opacity is permitted. Can the 65-lb paper be used?*

**Answer:** No. 65-lb paper must be 92 percent opacity.  
7/23/71

## Specifications for Pre-Elementary Books

(Also applies to pages 28, 34, 37)

**Question:** *What weight paper should be used in a Reading Readiness Book for kindergarten which is included in the non-consumable softcover text category?*

**Answer:** 50 lb No weight is given in the specs for K books. 50 lb is required for grades 1 and 2 and no weight reduction is permitted until grade 3. This indicates that no paper lighter than that accepted for grades 1 and 2 should be used.  
7/23/72

**Question:** *Do the MSST specifications for grade 1 apply to books for kindergarten?*

**Answer:** On February 2, 1973, this question was addressed, and the response was that the MSST standards for hardbound books start with grade 1 except for cover board and cover cloth where the specs for Class A read “all texts . . . up to and including first grade.” However, readiness books and pre-primers in reading, which are used in either kindergarten or grade 1 are covered by the non-consumable softcover text specs (Item II).  
2/2/73  
Revised  
8/15/12  
#217

Upon recent review, publishers have evolved to manufacturing books for kindergarten to the same MSST specifications that exist for grade 1 products. Therefore, the earlier interpretation is being modified to state that MSST specifications apply to all products grades K–8.

**Question:** *We are publishing a bilingual kindergarten system which will consist of picture cards, flannel board patterns, storybooks, etc. All material will be used by the teacher and not the pupils. Is this system required to meet MSST?*

**Answer:** Yes. However, this is ancillary material, and the sample submitted sets the specification (Class F). Because this question relates to “a kindergarten system consisting of picture cards, flannel board patterns, storybooks, etc.,” and because we believe that the material in question (picture cards, flannel board patterns, storybooks, etc.) does not fall under the purpose and scope of MSST as outlined on page 1 of MSST, we recommend that this program not be covered by MSST.  
2/2/81  
#125

## Pages 32–35—Binding Requirements, General Case-Lining Material

**Question:** *Can cover board be used as a case lining?*

**Answer:** There is nothing in *Manufacturing Standards and Specifications for Textbooks* that forbids use of a cover board as a case lining provided it has a Mullen bursting strength of 45 points per square inch.  
7/23/70

**Question:** *We are publishing a grade 1, McCain-sewn textbook having 64 pages, 8" x 10" trim size, and a bulk less than ¼". May we bind it using a stiff board back?*

**Answer:** The MSST does not prohibit the use of board as a case-lining material. It specifies that "Case-lining material used in the covers of books cased in 'tight-back' . . . shall have a bursting strength (Mullen TAPPI T-403) of not less than 45 points per square inch" (p. 32, MSST). If the board has such a bursting strength, it is acceptable.

## Endsheets

**Question:** *Can stitched book endleaves be gathered on as two separate sheets or must they be pasted together at the back edge as produced by the Brackett stripping machine?*

**Answer:** They may be gathered on. Pasting the sheets together is for manufacturing convenience only and has no effect once the books are wired and/or stitched.

**Question:** *Is it permissible to use endsheets over 80 lb per ream?*

**Answer:** Yes, if Bursting Strength and Folding Endurance Specifications are met.

7/24/71

**Question:** *On a side-stitched book that must meet MSST specifications, may a single reinforced sheet be used instead of the double sheet or four-page visibly reinforced endpaper?*

**Answer:** The MSST is silent on whether the endpapers on a side-stitched book must be manufactured with a single sheet or a four-page endsheet. However, the inferences contained in the MSST support the use of a four-page endpaper. For example, there is a folding endurance test for endpaper (see page 33). Folding endurance would have significance only for a four-page endsheet. Furthermore, there is an interpretation printed in the MSST on the gathering of the endsheets on a side-stitched book that directly describes the endleaves as two sheets (see first question above under Endsheets).

2/6/84

#140

Based on the inferences and the general practice used in the industry of using four-page endsheets for side-stitched books almost without exception, we would conclude that visibly reinforced four-page endsheets must be used in side-stitched books meeting MSST specifications.

**Question:** *May a table of instructional material contained in the text be pasted on page two of the back endsheet of a side sewn hardbound textbook?*

*In this instance, instructional material will already be present on the back endsheet (page three). Therefore, page two will be pasted on and page three printed on. Page one will be blank, and page four is pasted to the cover.*

**Answer:** Yes. The table referred to in your question may be pasted, as long as the entire reverse side is solidly attached to the endsheet. The instructional material printed on the endsheets must be reproduced elsewhere in the book, although not necessarily in one place.

7/28/97

#187



**Question:** *We would like to attach a pocket to the endpaper of a textbook for holding a CD-ROM disc. Would this be allowable under the MSST?*

**Answer:** No. Although the MSST is silent on this particular feature in a textbook, the intent of the specifications would disallow its use for the following reasons:  
7/27/98  
#194

1. No instructional material shall be printed or attached on any page of the endsheets unless reproduced elsewhere in the book.

2. By attaching the disc to the endpaper, the disc becomes an integral part of the textbook, but because of its nature, it must be removed from the book to be used. This subjects it to being lost or damaged, which is contrary to the very reason for the binding specifications, which try to permanently incorporate all instructional material within the covers of the book.

Note: Exception to this requires the publisher to list it as a deviation to MSST and must be so stated in Form B.

**Question:** *We have a Class E foreign language textbook that bulks over  $\frac{3}{4}$ ". Does the MSST permit adhesive-binding for this book?*

**Answer:** Yes, provided written authorization of the adopting agency is obtained. (See page 2 of the MSST.) While side thread stitched is the stated preferred method, Smyth sewn is also permitted with qualifications. And adhesive binding is an acceptable substitute for Smyth sewn up to 1  $\frac{1}{2}$ " bulk for your particular classification.  
7/24/00  
#200

**Question:** *We have a Class B, Spanish edition, reading textbook. May we adhesive bind as a foreign language discipline?*

**Answer:** No. In this case, the primary discipline (reading) sets the binding requirements. Foreign language covers those textbooks intended to teach a specific language other than English, e.g., French.  
7/24/00  
#201

### Inserts—Side-Stitched Books

**Question:** *Each correctional insert in a side-stitched book is to be tipped to the stub of the leaf it replaces. Does this apply to double-page inserts or only to single inserts?*

**Answer:** It applies to both.  
2/24/72

**Question:** *We have published a side-sewn book in which we want to correct four consecutive sheets totaling eight pages. May this be done and, if so, how are they to be attached?*

**Answer:** Not more than three inserts for correctional purposes are permitted in a side-sewn book except by agreement between the publisher and the adopting agency (p. 33, MSST). If permission is granted by the adopting agency for the replacement of eight pages, each of the four inserts shall be tipped to the stub of the leaf it replaces. It may also be handled as two consecutive double-page inserts, each of which is tipped to the stub of the pages that were replaced and be printed on similar paper as the leaf it is replacing.  
7/27/87  
#151

### Inserts—Smyth Sewn Books

**Question:** *Must a four-page insert be mounted on a guard tipped around the signature in all cases?*

**Answer:** Yes, if bound in as an insert. However, a four-page can be bound in as a signature that is "sewed or stitched in as an integral unit of the book."  
7/23/70



**Question:** *In a Smyth sewn book on 50-lb paper, there will be 64 pages of insert material on 60-lb paper. If 1. a four-page will appear between 32s, must it be guarded? 2. a four-page is inserted between pages 16 and 17 of a 32-page signature, must it be guarded? 3. an eight-page insert wraps around a 32-page signature, must it be guarded?*

**Answer:** 1. The four-page can be sewed into the book as a four-page signature; otherwise it must be mounted on a guard and tipped around one of the 32s.  
2. If the sewing thread comes between pages two and three of the insert, no guard is needed.  
3. No guard is needed.

**Question:** *May a divider sheet of colored stock heavier than the text paper be tipped in between the text and the index of a Smyth sewn book?*

**Answer:** Yes, if it is the only insert in that signature. If there are one or more other inserts in the signature, all, including the divider, must be self-guarded by tipping around the signature.

**Question:** *No provision is made for correctional inserts in Smyth sewn books. Are they permitted?*

**Answer:** Yes, the specs state that if there is only one single insert in a signature, it may be tipped in. If there is more than one single insert per signature, it must be guarded (sewn in). A correctional insert which is mounted on the stub of the page it replaces is mounted on a page which goes around the signature and, thus, is sewn in.

**Question:** *Must a double-page spread on 70-lb paper, which is inserted into the center of a signature and sewed in, be reinforced with a guard at the center fold?*

**Answer:** No. A guard is required only if the four-page double spread cannot be sewn into the book unless it is tipped on a guard which, in turn, is sewn in.

**Question:** *We wish to use a 6 ½" x 9 ¼" 16-page insert sewed into a 7 ½" x 9 ¼" book. Is this permissible?*

**Answer:** Yes. If any text matter is included in the insert, it must meet the margin requirements on page 17.

**Question:** *Does page 33 require all single inserts to be self-guarded?*

**Answer:** No. Any one that is the only insert in the signature in which it is placed can be tipped in.

**Question:** *If a Smyth sewn book over 1 ¼" in bulk has a single page insert tipped in on the second page of a signature and, if in the process of the tip-in, the volume separates between the end of the preceding signature and the signature of the tip-in to such an extent as to expose the spine over ½" of the height thereof, causing a crease in the back of the cover, would such comply with industry standards and/or with the MSST?*

**Answer:** The situation that you describe implies that the insertion of a tip has caused a split in the back of the book between signatures. Without physically examining a number of books, we cannot determine whether the split was caused by the tip-in or other manufacturing problems, and even if we could, it would be a judgment decision and not a scientific one. As far as a book with a split conforming to the MSST, there are no performance standards in these specifications. They are, for the most part, methods of manufacturing and material specifications, and a book with a split might or might not still conform to the MSST. There is no published group of industry performance standards for book manufacturing, but poor workmanship is generally recognized by knowledgeable publishers and manufacturers.

**Question:** *We are publishing a Class E, Smyth sewn 8" x 10" textbook and would like to add a gatefold that would be an extension of the back endpapers, pages five and six. Instructional material would be printed across the spread consisting of the foldout of the flyleaf, pages six and seven. The printed material would be repeated in the text of the book. Copy would also be positioned on flyleaf five and the reverse of the foldout to encourage the student to unfold the gatefold. Is this design allowed by the MSST?*

**Answer:**  
7/24/89  
#163  
A gatefold of this type would be allowed as an extension of the back endpaper on a Smyth sewn, Class E textbook. The endpaper would have to be reinforced as indicated on page 34 of the MSST. Instructional material would also be allowed to be printed across the spread of the foldout since you indicated that this would be repeated in the text of the book. A gatefold of this type would have no adverse effect on the strength of the binding. The endpaper and Smyth sewing would have to be in conformity with the other requirements of the MSST. Copy on flyleaf five to explain the use of the gatefold would be allowed.

**Question:** *We are publishing a book in which a separate 16-page section will be bound at the end of a side sewn, Class E, casebound edition of a textbook. It will follow the index of the book, it is not included in the pagination, and it falls outside of the instructional plan. May this section be considered an insert and handled in the printing and binding as such under the MSST?*

**Answer:**  
7/22/91  
#167  
Yes. A 16-page section isolated from the rest of the book and not part of the organized instructional text material contained in the book would be an insert. Normally an insert contains illustrated material, maps, or charts printed separately from the regular text of the book, and by this definition, your treatment of the section would make it an insert. It would not really matter whether the insert was paginated, but by its location and content, it could not be ruled as an integral part of the instructional text material, and consequently would fall into the insert category.

As an insert in a side sewn book, it should extend to the back of the book and be sewn in by thread. Regular back margins should be used of not less than  $\frac{3}{4}$ ", measured from the sewing to the text page.

There is no problem with the gloss exceeding the maximum specification since this gloss specification does not apply to inserts.

**Question:** *Should unmilled, adhesive-bound signatures carry the same maximum number of pages per signature as Smyth sewn or side-stitched books, as noted on page 34 of the MSST?*

**Answer:**  
7/24/00  
#198  
Yes, provided the manufacturer can meet the specific binding requirements as outlined in the Specifications for Hardcover Adhesive-Bound Books of the MSST.

### **Inserts—Transparent Overlays**

**Question:** *Are fold-out inserts prohibited?*

**Answer:** *Manufacturing Standards Specifications for Textbooks* do not prohibit use of a fold-out insert.

7/25/70  
As you described the fold-out, it is the basis sheet of a transparent insert. The specifications require that it be fastened to the transparent sheets by wire, adhesive, or heat sealing, and that this entire insert be mounted on a guard which wraps around the signature section.

**Question:** 1. Must transparent inserts be pre-stapled or stitched?  
2. Can they be tipped in?  
3. Do they require a cambric backing?

**Answer:** 1. The transparent sheets must be fastened to the base sheet by wire staples, adhesive, or heat seal.  
2/2/71  
2. The unit cannot be tipped in but shall be mounted on a strong paper or cloth guard which, in turn, shall be tipped around the signature.  
3. The wire-stapled units you propose to use mounted on a cambric wrapped around the fold of the signature meet requirements.

**Question:** *May a transparent insert be placed within a signature, or must the guard go around the outside of the signature?*

**Answer:** It may go anywhere provided the guard on which it is mounted is tipped around the fourpages of the signature to which the guard will be attached. This assures the guard being sewn in. Placing a transparent insert within a signature requires handwork and is costlier than placing it on the outside.  
2/3/72

**Question:** *Must a transparent insert in a McCain side-stitched book be tipped around the signature?*

**Answer:** No. There is no specification requiring any insert, single, double, or transparent, to be tipped around the signature in a side-stitched book. Tipping around applies to Smyth sewn books only.  
7/29/74

**Question:** *We presently have a transparent insert in a high school textbook consisting of a one-fold base sheet wrapped around and glued to three plastic sheets. This insert is tipped and guarded to an adjacent 32-page signature. We want to substitute for it a transparent insert in which the one-fold base sheet is severed into two separate sheets and the plastic pages and base sheets are heat-sealed to each other. The entire transparent overlay is then tipped and guarded to an adjacent 32-page signature as before. Is this method of manufacturing permitted, and how is the substitute transparent insert handled under the MSST with the state agency?*

**Answer:** Heat sealing of the plastic sheets on a transparent overlay to the base sheet is permitted under the MSST, but severing the base sheet into two separate sheets would reduce its strength and would not be permitted. Tipping and guarding the transparent insert to an adjacent signature is a proper method of securing it and is acceptable. If the method of binding a transparent insert is changed to a substitute acceptable method after a book has been adopted, all that is required is that a new Form B be filled out indicating the binding change under "transparent overlays" and a new official sample book be submitted to the state adopting agency.  
7/25/88  
#157

## Reinforcements

**Question:** *Can the muslin reinforcement on a Smyth sewn book be exposed as in a library binding?*

**Answer:** No.  
7/23/71

**Question:** *Can a concealed joint be used in a side-stitched book?*

**Answer:** No.  
7/23/71

**Question:** *On page 34 of the MSST, under Reinforcements, is the stripped weight for drill defined as the weight of the product applied to the book by the manufacturer?*

**Answer:** Stripped weight, in this instance, defines drill material at the time of application. In other words, that material received by the bindery is to be stripped to another material (i.e., endsheets).  
6/14/02  
#204

**Question:** *Is it permissible to use a polyester drill cloth instead of cotton and, if so, what are the specifications?*

**Answer:** The question you ask has not come up before; therefore, it has not been studied by the Manufacturing Committee of BMI. However, if polyester drill cloth meets or exceeds the requirements on page 50 when tested by the methods outlined on page 75, it may be used instead of cotton drill.  
7/28/80  
#120

**Question:** *We would like to use a reinforcement material for the first and last signature of a Smyth sewn book which is made of 50 percent polyester/50 percent cotton cloth in place of the present material which is 100 percent cotton cloth. Would this be allowed?*

**Answer:** Yes. A 50 percent polyester/50 percent cotton material may be used as the joint muslin reinforcement on a Smyth sewn book if it meets the present thread count and tensile specifications as outlined on page 34 under Reinforcements.  
7/24/95  
#183

**Question:** *The MSST is clear on reinforcement of endsheets for Smyth sewn and side-stitched books. What are the requirements for reinforced endsheets for adhesive-bound books?*

**Answer:** Adhesive-bound, hardcover textbooks do not require reinforced endsheets.  
7/24/00  
#199

## Rounding and Backing

**Question:** *What are the specifications applying to the rounding and backing of side sewn and Smyth sewn books?*

**Answer:** Side-stitched books may be rounded and backed or unbacked (with square back). Smyth sewn books must be rounded and backed.  
2/2/70

## Signatures

**Question:** *What are the specifications regarding the last fold of a signature in a side-stitched book?*

**Answer:** The last fold of a signature in a side-stitched book may be on any edge of the book. In a Smyth sewn book, the last fold shall be the binding edge.  
2/2/70

**Question:** *We plan to use .00285-caliper paper for a book to be bound in 48-page signatures. Manufacturing tolerances in papermaking could bring the sheet above .003 caliper. Is this permitted? If a book is folded in 24-page signatures and one is inserted into another to make a 48-page signature, does the .003 caliper specification apply?*

**Answer:** Standard paper tolerances are plus or minus 5 percent in caliper so that a mill delivery of a sheet .00315 in caliper meets requirements. The .003 caliper specified is not to be reduced by the manufacturing tolerance when paper is ordered. The number of pages in a signature is based on the finished book, not on delivery off the folding machine. Two inserted 24s is a 48-page signature, and .003 caliper applies.  
2/2/71

**Question:** *Are there situations where, even though there is only one insert in a signature, the Smyth sewn book would nonetheless be defective? Please give examples.*

**Answer:** Regardless of the tip-in, which ordinarily should not render a book defective, there are innumerable situations in which a Smyth sewn book might be defective. For example, the adhesives might be inferior, the reinforcing of the title and end signatures might be inadequate, the sewing might be loose or the threads broken, the cover might not fit the book, the building-in might be inadequate, etc.  
2/6/89  
#161

## Tolerance

**Question:** *What tolerance is permitted in the trim size of a book?*

**Answer:** The normal variation is due to machine limitations of mechanical equipment. There is no tolerance for trim size specified in MSST. A variation of trim size of plus or minus  $\frac{1}{16}$ " is permissible.

## Pages 36–39—Binding Requirements, Sewing and Stitching

**Question:** *What are the thread specifications for the automatic McCain-type stitching?*

**Answer:** Either 8/6 cotton, 19  $\frac{1}{2}$ /5 or 20/5 linen, or equivalent nylon- or cotton-covered polyester thread may be used for McCain side stitching, and each shall have a minimum tensile strength of not less than 25 lb when tested by the single strand method.

**Question:** *Are there greater maximums (regarding thread) for Class E textbooks than other classes?*

**Answer:** Class E books have the same thread requirements as other classes requiring side thread stitching.

**Question:** *Can a Moffett stitcher be used for side-stitched books?*

**Answer:** Yes. The Moffett stitcher is composed of a standard Singer stitcher head with a drill attachment added. Thus, the net result is equivalent to McCain stitching. There are two types of stitchers used on side-stitched books. The Singer and Moffett use two threads and operate with a needle and a bobbin. The McCain uses a single thread with a chain stitch. Thread used on the Singer and Moffett must test not less than 14 lb for the needle and 1 lb for the bobbin. Thread used on the McCain must test not less than 25 lb. Side-stitched books up to  $\frac{3}{4}$ " produced on both the Moffett and the McCain are acceptable under the *Manufacturing Standards and Specifications for Textbooks*. Books up to and including  $\frac{5}{8}$ " bulk produced on the Singer machine are also acceptable.

**Question:** *We have a HS book over 70 sq in. with  $\frac{3}{4}$ " bulk. Page 37 gives only two classes for HS books, Class I and Class II. Is this book a Class II book or is it Class E (70 sq in)? How should it be listed in Form B?*

**Answer:** Page 37 applies to sewing and stitching only. The book is a Class E book but is also a Class II book with regard to sewing and stitching. Form B item "Class of Textbook" should be checked *E*. On the second line of item "Sewing and Stitching," check *II*.

**Question:** *Can a textbook that is not graded but is used in grades 7 through 12 be Smyth sewn?*

**Answer:** Yes. Since it is over 70 sq in. in area and  $1\frac{3}{16}$ " in bulk, it becomes a Class E book for grades 7 and 8 and a Class II book for grades 9 through 12. Page 37, first item, permits Class E to be Smyth sewn as an alternate method. Class II books may be Smyth sewn or side stitched.

**Question:** *Can a  $\frac{1}{2}$ " book be wired only?*

**Answer:** No. One-half inch side-stitched books come under Class B, page 39, and must be side thread stitched with or without wires.

**Question:** *We have published English books for grades 1, 2, 3, 7, 8, and 9. Bulk is  $\frac{5}{8}$ ". May these books be Smyth sewn?*

**Answer:** Yes, if the requirements of paragraph one, page 37, are met. You must have written authorization in accordance with the instructions of paragraph two, page 37, of MSST.

7/28/80  
#119

**Question:** *A thread company is offering us a polyester rayon cotton coated thread for use in Smyth sewn books. Does this thread meet MSST requirements?*

**Answer:** The thread company must warrant that this thread meets the standards for coated thread stated on page 37. If these standards are met, the thread may be used. However, the Manufacturing Committee of the MSST committee should be notified, test results presented, and a request to include this thread in the table on page 37 made (1982 edition MSST).  
2/7/83  
#129

**Question:** *We are using size 10/4 cotton thread on the bobbin and size 10/5 cotton thread on the needle of a side stitcher for side-sewn books up to  $\frac{5}{8}$ " as prescribed in the MSST (p. 38). We would like to use a size 8/6 cotton thread for the needle and a size 10/4 cotton thread for the bobbin for greater productivity and strength. Is this permissible?*

**Answer:** Yes, this is permissible. Using materials that are better and stronger than the specifications list is always permitted provided that the materials are machine workable. The MSST provides minimum specifications for textbooks, and they may be exceeded if the manufacturer or publisher so desires.  
7/27/87  
#152

**Question:** *Does the use of the Moffett Side Stitcher conform to the MSST Specifications for side-stitched books?*

**Answer:** The Moffett Side Stitcher is one of the standard side-sewing machines in use for the production of side sewn El-Hi books. It covers, along with the McCain Stitcher, that category of books referred to in the MSST as side-thread stitched by the drill-and-stitch method. Both the McCain and Moffett have drill attachments for use on thicker books.  
2/4/91  
#165

The Moffett Side Stitcher may be used for Class A, B, and E up to and including  $\frac{3}{4}$ " bulk, as well as secondary school books up to and including a maximum of  $\frac{3}{4}$ " in bulk.

## Page 49—Cover Requirements

### Board

**Question:** *Must the grain of cover board run parallel to the backbone?*

**Answer:** No, there is no specification covering grain of cover board.  
2/2/71

**Question:** *Materials supplied on an adoption are contained in a slipcase. Must the board used meet cover board specifications?*

**Answer:** No. There are no specifications applying to the materials or use of slipcases.  
7/23/71

**Question:** *Is pasted chip board permissible under the specs? There is nothing mentioned about pasted chip board in the specs.*

**Answer:** A pasted chip board that meets the specifications on page 47 may be used.  
7/28/75

### Cloth

**Question:** *Must the warp of cover cloth run across the backbone of the book?*

**Answer:** There is no specification in the *Manufacturing Standards and Specifications for Textbooks* requiring the warp of the cover cloth to run across the backbone of the book. Cover cloth may have the warp run either way on the cover. The only specifications regarding the direction in which warp threads must run are for super, where the warp threads must run across the backbone, and for stitched book endsheet reinforcements, where the warp threads must run parallel to the backbone of the book.  
7/25/70



**Question:** *Can C-grade cloth be used on a book with a trimmed area of over 70 and bulking ¼"?*

**Answer:** No. C-1 cloth must be used.

2/2/71

**Question:** *Can B-grade or C-grade pyroxylin with a Mylar film be used on an 8 ¼" x 9 ¼" book? Is less bulk (below 1 ¼") a factor?*

**Answer:** No. C-1 is required. An 8 ¼" X 9 ¼" book falls in Class E.

7/25/71

**Question:** *If Mylar was laminated to a weak cloth so that the combined material was equal to or stronger than cloth spec, could it be used as meeting specs?*

**Answer:** No. The base cloth must meet specs prior to printing, top coating, or laminating.

2/2/73

## **Non-Woven**

**Question:** *Under what circumstances can non-woven cover material be used? How can we tell whether it meets specifications?*

**Answer:** Non-woven material may be used in place of book cloth if it meets the specifications on pages 54 and 55 of *Manufacturing Standards and Specifications for Textbooks*. If you plan to use one of those available, you should obtain from the manufacturer the results guaranteed for the tests required on each specification on the page. Should any results be below the requirement specified, the material may not be used. Sometimes material manufacturers object to giving out their company manufacturing specifications but will attest that the material conforms to or exceeds the standards published in the MSST. In this case you should obtain a warranty to this effect. In submitting a book for adoption, you guarantee that state specifications are met in your Warranty (Form B) and you should have supporting evidence of this.

7/25/70

**Question:** *We have been told by an adopting agency that no non-woven may be used for the cover of a casebound book and that non-wovens may be used for soft covers only. Is this correct?*

**Answer:** No. Unless the adopting agency has additional requirements, any non-woven material meeting the specifications on pages 52–53 may be used in place of Cloth Manufacturers' Groups B, C, or C-1 cloth. The specifications at the end of the *Non-Consumable Softcover Texts* section apply to Class AA, BB, and CC softcover texts only and do not pertain to the use of non-wovens for casebound books.

7/23/73

**Question:** *We market a Type III non-woven. We have been told that the tensile strength is 40 in each direction, but the sum of the tensile strengths of both directions must be 95. Is 95 an error?*

**Answer:** No. A material that tests 40 in each direction would be 15 points below the specification for the sum of the two. If one direction tests 40, the other must test 55 or more.

2/3/75

**Question:** *Is any cover material that is not a woven thread (cloth) a non-woven? What are the requirements for hardcover non-wovens? See the definition of "Non-woven" on page nine.*

**Answer:** The specifications for non-woven material for hard covers are set forth on pages 52 and 3. Nowhere is it stated that the specification is limited to Type II or Type III non-woven as defined on page 12. Any non-woven material which meets the standards on page 52 or 53, regardless of the type (Type I, II, III, or a type yet to be discovered), is acceptable.

2/3/75

**Question:** *Can the cover material of an already adopted hardcover book be changed from Type III to Type II Non-Woven? If so, what procedure must be followed?*

**Answer:** Yes, Type II non-woven material may be used if it meets the specifications on page 53. No permission or notice is required in order to make the change.

2/2/76

**Question:** *At what stage do the specifications for cover material apply as stated on pages 52 and 53 of MSST?*

**Answer:** The material must meet these specifications when it is shipped from the manufacturer to the printer, and it must be so warranted.  
2/6/84  
#132

**Question:** *May I substitute a Type II cover material for a Type III cover material without taking action to notify those agencies that had previously adopted their books covered in Type III?*

**Answer:** Yes, a Type II cover material may be substituted for a Type III cover material since each of them is interchangeable with cloth. (See pages 52–53.) If they are both interchangeable with cloth they are interchangeable with each other, and interchangeability implies equivalency. Based on the wording of the warranty (p. 6), books must be identical to or equivalent to the official sample. No new Form B is required when an equivalent material is used on copies subsequently furnished under the contract.  
2/4/85  
#139

**Question:** *We have an English series in which each book has a title "English" plus a code consisting of a letter and a number. No grade or level appears in the title. The books are used both as a graded series and individually. The word "English" is on the spine, runs up the back, and is ½" high and 2 ¾" long. All covers have the same all-over pictorial design in color. Would printing the word "English" and the code in a different color for each book cover the graded series requirement on page 49 of the specs for these books when used as a graded series?*

**Answer:** Yes. A prominent color which stands out so that it easily identifies the book from the others in the series is acceptable.  
7/24/72

**Question:** *We have an Item IV non-consumable text series where each grade is split into four or five softcover pamphlets. Should each section of the same grade use the same color?*

**Answer:** Yes. These are parts of one segmented book.  
2/11/74

### **Offset Lithographed, Letterpress Printed, Silkscreen Printed, Inked, or Stamped Covers**

**Question:** *May silkscreen be used for printing cloth covers?*

**Answer:** Silkscreen is permitted. The cloth shall be the same grade used for other covers (offset or stamped), and the printed covers do not require a top coating as do offset covers.  
2/2/70

**Question:** *Do silkscreen printed covers require top coating?*

**Answer:** No. Only lithographed covers require top coating.  
2/4/72

**Question:** *We find no specifications for onlays glued to covers. Are they permitted?*

**Answer:** In the absence of any reference to onlays in the specifications and with a specific and detailed list of cover treatments on page 49, it is implied that only cover decoration as listed in paragraph 3, page 49 are permitted. Thus, onlays are not permitted under the specifications.  
7/25/74

**Question:** *Is it permissible to apply a sticker containing the ISBN and/or bar code on the back cover of a textbook?*

**Answer:** No. In this instance, a sticker is treated the same as a cover onlay, which is not permitted under MSST specifications. This is consistent with an earlier interpretation that refers to treatments on page 49.  
7/24/02  
cover #203



**Question:** *What is the status on textbook cover embossing?*

**Answer:** NASTA officially ruled out embossing of textbook covers at their 2005 annual meeting. The 2005 embossing ruling is effective for 2009 copyright material; exceptions must be listed on Form B as a deviation. The embossing ruling does not affect existing material (copyright pre-2009) for the life of the product.  
8/01/06  
#208

## Pages 57–58—Hardcover Adhesive-Bound Books

**Question:** *May adhesive binding be substituted for Smyth sewing in reprinting a title? Are the accepted adhesive-binding styles considered equivalent to the Smyth sewn style of binding for which they might be substituted?*

**Answer:** Yes. Publishers may convert previously sewn editions to adhesive-bound alternatives, provided that the state has been notified, and the conversion conforms with the adhesive-bound specifications as outlined in the adoptions on adhesive binding dated 7/22/91 and 2/3/92. These changes cover the new adhesive binding specifications agreed to by the MSST committee following the five-year test program and the revisions to those specifications adopted in February of 1992.  
7/27/92

The Report of the ABT Commission on adhesive binding dated February 4, 1991, stated that “adhesive binding is a viable and reasonable alternative to Smyth sewing.” With the adoption of adhesive binding, the intent of the specifications was that hardcover adhesive binding may be used in all cases where Smyth sewing is allowed except for the restrictions as outlined in the revision of the unmilled adhesive-bound specifications on 2/3/92.

The notification to the state requirement shall be considered satisfied if a Form B is filled out indicating that the book will be adhesive-bound and the type of adhesive binding to be used. There is no need to fill out the warranty once again or submit new samples to the state on a change of this type.

## Pages 59–64—Specifications for Non-Consumable Softcover Texts

### Style of Binding

**Question:** *We have a side wired, non-consumable softcover text with cover glued to back. Is a reinforcing strip required to be used on the front and back signatures?*

**Answer:** No.  
7/28/75

**Question:** *Are two wires enough for a side wired non-consumable softcover text over 9"?*

**Answer:** Yes. There is no specification for the number of side wires in the non-consumable softcover text specifications. No additional wire is specified for books over a certain length.  
7/28/75

**Question:** *Could we use adhesive binding in place of saddle wire?*

**Answer:** No. Saddle wire is limited to ¼" or less in bulk. Adhesive binding is permitted only over ¼" to ¾".  
7/28/75

**Question:** *What is the specification for the muslin used in the grain-parallel saddle-wired book reinforced with muslin at the center?*

**Answer:** The specification for “Reinforcements: Smyth sewn book” on page 34 applies.  
7/25/77

**Question:** *We are planning to publish a softcover non-consumable text that must meet current MSST in all respects. We desire to print some material on the inside back cover which will not appear elsewhere in the book. Is this permitted under the current MSST?*

**Answer:** The inside front and back covers of a softcover non-consumable textbook should conform to the same general printing requirements as those governing endsheets. Their position relative to the text of the book is the same as that of endpapers since both the cover and the endpaper are used for strengthening and reinforcing the book block. As a result, if you wish to print material which does not appear elsewhere in the book, the material cannot be instructional. It may be any material that is decorative in nature and is not referred to in the book.

**Question:** *I have charts and tables in a Smyth sewn non-consumable softcover text. Do they have to conform to margin specifications in MSST? Furthermore, if I put a rule around these charts and tables, does the rule have to conform to the margin specifications?*

**Answer:** Non-consumable softcover texts are subject to the same margin specifications as hardbound textbooks, and the charts and tables as text pages must conform to the MSST. A rule around a page is not part of the text page and falls into the same category as marginal notes, foot folios, line numerals, extended side heads, maps, bleed-type illustrations, and captions (legends), which are also not considered part of the text page, but no less than ¼" net margins are permitted on any except bleed-type illustrations.

## Adhesives

**Question:** *A binder has delivered us an adhesive-bound book with leaves falling out as soon as the book is opened. Are there any standards such as pull or flex tests required under MSST?*

**Answer:** This is covered by the "Adhesives" specifications on page 32. There is no flex or pull test. Since your book separates with no damage to the bonded areas, it would appear that the adhesive does not meet standards.

**Question:** *Is PUR glue accepted in the MSST?*

**Answer:** Yes. Specific types of adhesives are not specified in the MSST. The MSST requirement for the adhesive that is to be used is "Adhesives used in all operations of book binding shall be capable of forming an adequate bond between the surfaces to be joined. The adhesive shall be of such quality that the bonded areas cannot be separated without damage to the bonded surface."

## Cover Material

**Question:** *Can an eight-page non-consumable softcover text printed on .006 caliper 100-lb paper be self-covered? The book is a pre-primer.*

**Answer:** No. This is a Class AA book and a cover must be used which meets the AA cover material specs on page 64. These are much higher than the specs met by a text paper.

**Question:** *Can a Type I non-woven paper be used for cover material for Classes AA, BB and CC of non-consumable softcover texts?*

**Answer:** Yes, provided it meets the specifications on page 64

## Cover Attachment

**Question:** *Can we use a thinner than 17-point Type II non-woven Class BB non-consumable softcover text?*

**Answer:** No caliper is specified for cover material. You may use the lightest weight that meets the specifications on page 64.

**Question:** *We have a saddle-wired non-consumable softcover text. We can save 5" of waste on each sheet of cover material if the sheet is used cross grain. Is this permissible?*

**Answer:** No. Page 57 states that if a cover material has a grain, the grain must be parallel to the backbone of the book.  
2/11/74

**Question:** *We coat both hardcover and softcover materials after printing and find that almost all softcover materials fail the 150-cycle Taber test after coating. Do the coating specifications apply to soft covers?*

**Answer:** Yes. There are two specifications for coating. Only hardcover books require 150 cycles. Soft cover books require only 40 cycles.  
2/3/75

## Miscellaneous

**Question:** *May supplementary readers for grades 1–3 be softbound under the new supplemental softcover specifications?*

**Answer:** Supplementary readers for grades 1–3 do not fall in the Reading Readiness and Pre-Primer classification of the new softcover specs. If they are each used independently as a textbook, they fall in Class A, B, or C (depending on bulk) of the hardbound specifications. If they are small supplementary books used with a basic textbook as extra or ancillary material, they could fall in Class F.  
7/22/72

**Question:** *Would a handbook of English for high schools bound in soft cover be permitted under the specs?*

**Answer:** Only if it is auxiliary to the basic pupil's textbook used in the course. It would then be defined as a workbook (p. 13) and fall into Class F. If it is not an auxiliary book, and from your description your book is a pupil's textbook, it would not meet specs if softcover. If you wish to submit the book for adoption in soft covers, you must list the covers as a deviation from specs in filing Form B.  
2/2/73

**Question:** *We have a paperbound non-consumable text that does not fall in items I–IV of the softcover specifications. Is this a Class F book, and how should we list it on Form B?*

**Answer:** This is a book which should have hard covers under the specifications. Check one of the classes A to E on Form B according to the bulk of the book. File for a deviation for the cover on page one of Form B following the last paragraph, and sign warranty three on page two of Form B.  
7/23/73

**Question:** *We have charts on the inside front and back covers of a paperback. The non-consumable softcover text specs do not state that instructional material on the covers must be repeated in the text. Can we put them on the covers only?*

**Answer:** No. Specifications which are not inherent in the style of binding must be followed on soft cover texts as well as on hardbound books. These include use of the uniform label, copyright page, instructional material on endsheets, specs on page 17, etc.  
7/28/75

**Question:** *Printed material on endsheets which contains instructional material must also be printed in the text. Does this apply to the inside pages of the cover of a non-consumable softcover text?*

**Answer:** Yes.  
7/25/77

**Question:** *We are publishing non-consumable softcover texts which will consist of eight units for each grade. The trim size is 8" x 10" and they fall into Class AA. We would like to three-hole punch these books so the students may keep each unit in a three-ring binder along with their notebook. Teachers feel that it will preserve the life of the unit. May this be done?*

**Answer:** 2/5/96  
There is nothing in the MSST that disallows the use of punching of three holes along the back of the book, which would not weaken the binding of this relatively thin class AA saddle-stitched #186 book in any way. The punching, however, must not obliterate any part of the text page other than decorative illustrations that may fall in the back margin of the book, or any portion of the bar code or ISBN that appears on the back cover of the book.

**Question:** *Is a three-piece hard cover permissible under the specifications?*

**Answer:** 2/11/74  
Yes. There is no specification requiring that covers must be made from one piece of material. The material for the back and the sides must each meet the cover material specifications on page 64.

**Question:** *We are publishing a high school textbook that must meet MSST specifications. We would like to print on the back cover of the textbook information about the book and the author. Is this allowed?*

**Answer:** 7/22/85  
#143  
There is nothing in the MSST that restricts the information that may be printed on the cover of a hardbound textbook. Therefore, information about the book and the author would be allowed.

**Question:** *Is it a requirement of the MSST that books be manufactured in the USA?*

**Answer:** 7/27/98  
#192  
There is no requirement in the MSST that books be manufactured in the USA, only that the published MSST specifications be followed.

## Page 80—Protective Top Coating

**Question:** *An El-Hi book has a cover with a protective film laminated to the offset printed material. Are there any specifications for the material laminated to the base other than the Taber test on the image?*

**Answer:** 7/29/74  
No. The lamination becomes the protective coating and must meet the Taber test, which is the only test required.

**Question:** *We have an E-1 book litho-printed on C-1 cloth. Does the cover need to be top-coated? Is spirit varnish a proper coating?*

**Answer:** 7/29/74  
A lithographed cover must be top coated according to the specifications for the Taber test on page 80. Spirit varnish would be acceptable if it met the 150 cycles required by the test. A normal spirit varnish coating would test far below the 150 cycles required.

**Question:** *What is the definition of "no apparent wear" in the top-coating specifications on page 80? Is it one tiny spot of white showing? Should there not be visual standards supplied for reference?*

**Answer:** 7/28/75  
This is a matter of judgment. A single spot would not necessarily be caused by wear; indication that the wheel is forming a worn track would be apparent wear.

**Question:** *I would like to clarify the specification requirement for abrasion for a three-piece case used on a McCain-sewn pupil's edition. The spine and side materials are standard cover materials that each meet all cover specifications as defined in the MSST, but the test performed on a section of the case containing both materials fails the test, since there is increased stress along the raised edge. Does such a book meet the MSST?*

**Answer:** Yes. As long as the individual materials making up the three-piece cover have been liquid-coated or film-laminated to protect the offset image, and these materials meet the test standard of 150 cycles without apparent wear on the printed image, the cover is acceptable in regard to the MSST.

7/27/92  
#174

The Taber test, performed on a circular disk about 4" in diameter and cut from the flat cover material, was never designed to give a proper reading on a raised edge including a double thickness of material. It is to be used on the flat surface of the cover material to determine the abrasion loss caused by the rotating wheels.

As a consequence, if the samples are cut from representative parts of the flat material for testing, and these samples meet the test specifications, the cover is deemed to meet the MSST specification in regard to abrasion resistance.

**Question:** *For a particular discipline, we are applying a second layer of top coating to certain areas of the textbook cover to enhance the appearance of the finished product. Is there a testing procedure that will determine if our process satisfies the requirements of the MSST?*

**Answer:** Page 80 of MSST lists cover-coating testing. The process you described would be subject to meeting or exceeding those testing requirements.

7/21/08  
#211



## Metric Conversions (continued)

| Basic Union—Stere (s)<br>Which is 1 Cubic Meter (cu m) = 35.3156 cu ft |                |   |            |             |                 |
|--|----------------|---|------------|-------------|-----------------|
| Metric Unit  | Metric Abbrev. |   | Basic Unit | Value       | U.S. Equivalent |
| Cu Centimeter  | cu cm          | = | Stere      | ÷ 1,000,000 | .0610 cu in     |
| Cu Decimeter   | cu dm          | = | Stere      | ÷ 1,000     | 61.0240 cu in   |
| Decistere  | Ds             | = | Stere      | ÷ 10        | 3.5316 cu ft    |
| Dekastere  | Dks            | = | Stere      | x 10        | 353.1560 cu ft  |

| .001 inch x 25.4 micrometers |                                       | Pages<br>Per Inch | Inches of<br>Bulk for 320<br>Pages | Expressed in<br>Millimeters per<br>32 Pages (mm) |
|------------------------------|---------------------------------------|-------------------|------------------------------------|--|
| Regular Board<br>Calipers    | Expressed As Microns<br>(micrometers) |                   |                                    |  |
| 80 pt                        | 2032                                  | 800               | .40000                             | 1.02   |
| 85 pt                        | 2159                                  | 640               | .50000                             | 1.27   |
| 88 pt                        | 2236                                  | 416               | .76923                             | 1.95   |

# Form B Reference Guide

STATE OF \_\_\_\_\_

## STATEMENT OF PUBLISHER SUBMITTING BOOKS FOR ADOPTION

One copy of this form signed by an official of the publishing company submitting books for adoption must be attached to the inside front cover of at least one official sample textbook submitted, plus additional copies when requested by the adopting agency.

Name of Publisher: \_\_\_\_\_

Address: \_\_\_\_\_

Title offered for adoption: \_\_\_\_\_

Copyright and edition: (p. 17) \_\_\_\_\_ ISBN: (p. 17) \_\_\_\_\_

### CLASS OF TEXTBOOK: (pp. 36, 61)

A \_\_\_ B \_\_\_ C \_\_\_ D \_\_\_ E \_\_\_ F \_\_\_ AA \_\_\_ BB \_\_\_ CC \_\_\_

College \_\_\_ Meets MSST

Grades 9–12 only, Class I \_\_\_ Class II \_\_\_

College \_\_\_ Meets with approved deviations (p. 13)

College \_\_\_ Does not meet MSST

### PAPER:

Basis weight \_\_\_\_\_ lb (pp. 28, 60)

### PRINTING:

Printing Symbol: (p. 17) \_\_\_\_\_

Margins: Back: \_\_\_\_\_" Head: \_\_\_\_\_" Front: \_\_\_\_\_" Foot: (pp. 17, 59, 61) \_\_\_\_\_"

### BINDING:

Number of pages (total): \_\_\_\_\_ Pages per signature: (p. 35) \_\_\_\_\_ Bulk: (p. 61) \_\_\_\_\_"

Trim Size: Width: \_\_\_\_\_" Height: \_\_\_\_\_" Endsheets: \_\_\_\_\_ lb

Inserts: Number and kind: (p. 58) \_\_\_\_\_

Method of attachment: (p. 58), \_\_\_\_\_

Transparent overlays: Number and kind: (pp. 33, 62) \_\_\_\_\_

Method of attachment: (pp. 33, 62) \_\_\_\_\_

Reinforcements: Visible drill joints: (p. 34) \_\_\_\_\_ Concealed muslin joints: (p. 34) \_\_\_\_\_

Binding methods: Sewed: \_\_\_\_\_ Stitched: \_\_\_\_\_ Adhesive: \_\_\_\_\_

Wires: Side: \_\_\_\_\_ Saddle: \_\_\_\_\_ Mechanical: \_\_\_\_\_

Lining up: Supers: Number: (pp. 33, 58) \_\_\_\_\_ Headbands: \_\_\_\_\_ Tightback: (pp. 32, 58) \_\_\_\_\_

### COVERS:

Cover boards: Thickness in points: (p. 49) \_\_\_\_\_

Cover material: Non-woven: Type II: \_\_\_\_\_ Type III: \_\_\_\_\_

Woven fabric group designation: \_\_\_\_\_

Non-consumable softcover texts, Class AA: \_\_\_\_\_ BB: \_\_\_\_\_ CC: \_\_\_\_\_

Other: \_\_\_\_\_

Cover graphics: Lithographed: \_\_\_\_\_ Screened: \_\_\_\_\_ Stamped: \_\_\_\_\_ Other: \_\_\_\_\_

Cover top coating: (pp. 49) \_\_\_\_\_

### SPECIAL FEATURES

The undersigned publisher submitting the textbook stated herein certifies (on the bases of tests of materials in their original conditions and in respect to the mechanical specifications employed in manufacture) that the filed sample conforms in every respect to the *Manufacturing Standards and Specifications for Textbooks* in the state of \_\_\_\_\_ with the exception of the following: (explain deviations fully below or on a separate sheet).