Before and After

TxDOT's Experience with Modified Asphalts

Before...





After.





Summary of 2005

- Total of approximately 382 million gallons
- 23 binder suppliers in 4 states
- Biggest single source: 71 million gallons
- 57.7% came from one company (7 locations)
- Predominant grade is PG64-22 (44.9%)
- Used 162 million gallons of modified binder
- Binder use increased 15% from 2004

Before...





After.



What Changed?

Major Changes since 1995

PG Binder Specification

■ AC-15-5TR/AC-20-5TR

Hamburg Wheel-Tracking Test

PG Binders: Before



 Predominant binder is AC-20

Used some modified binders

> AC-30P, AC-45P, AC10 or AC20 with Latex

 Lots of on-site latex blending

PG Binders Effects

Promotes use of harder binders
Climate considerations
Grade bumping
New spec makes it harder to blend latex
Fears over air-blown or other unmodified

PG Binders: After

- Predominant grade is PG-64-22
- "PG-plus" promotes modified binders
 - Version 1: pick your modifier
- Version 2: elastic recovery
 SBS becomes the dominant modifier



AC-15-5TR: Before

- No standout material
- Lots of alternatives
- Latex commonly used for seal coat
- Unmodified binders regularly used for seal coat

AC-20-5TR: After

AC-20-5TR is the premium seal coat binder
Accounts for 70% of all seal coat work
Any alternatives are also modified
Unmodified AC's are only used for precoat and flux

Hamburg

- Before: Climate based binder selection and grade bumping
- After: binder requirement based on Hamburg



Modified Asphalt Usage 1994-2005



How do we feel about that?

What's Next?

Volatility

Asphalt bid prices are up
\$2 per gallon and more for seal coat this winter
Wow! That's expensive asphalt!
More careful binder selection necessary

→ → Possibly more use of unmodified binders in less critical areas



