



# Specialty Resins for Rotomolding

The Dow Chemical Company

DELIVERING SOLUTIONS  
UNLOCKING OPPORTUNITIES

# Dow: An Innovation and Technology Company

Founded in 1897 - **118 years of growth**

---

**Largest chemical company** in the U.S.

---

**Ranked 48<sup>th</sup>** in the **S&P Fortune 500**

---

**\$49 billion** in annual revenue in 2015

---

**~ 49,500 employees** worldwide

---

Integrated **value chains** aligned to **high-growth sectors**

---

**6,000 product families** manufactured at **201 sites** in **35 countries** across the globe

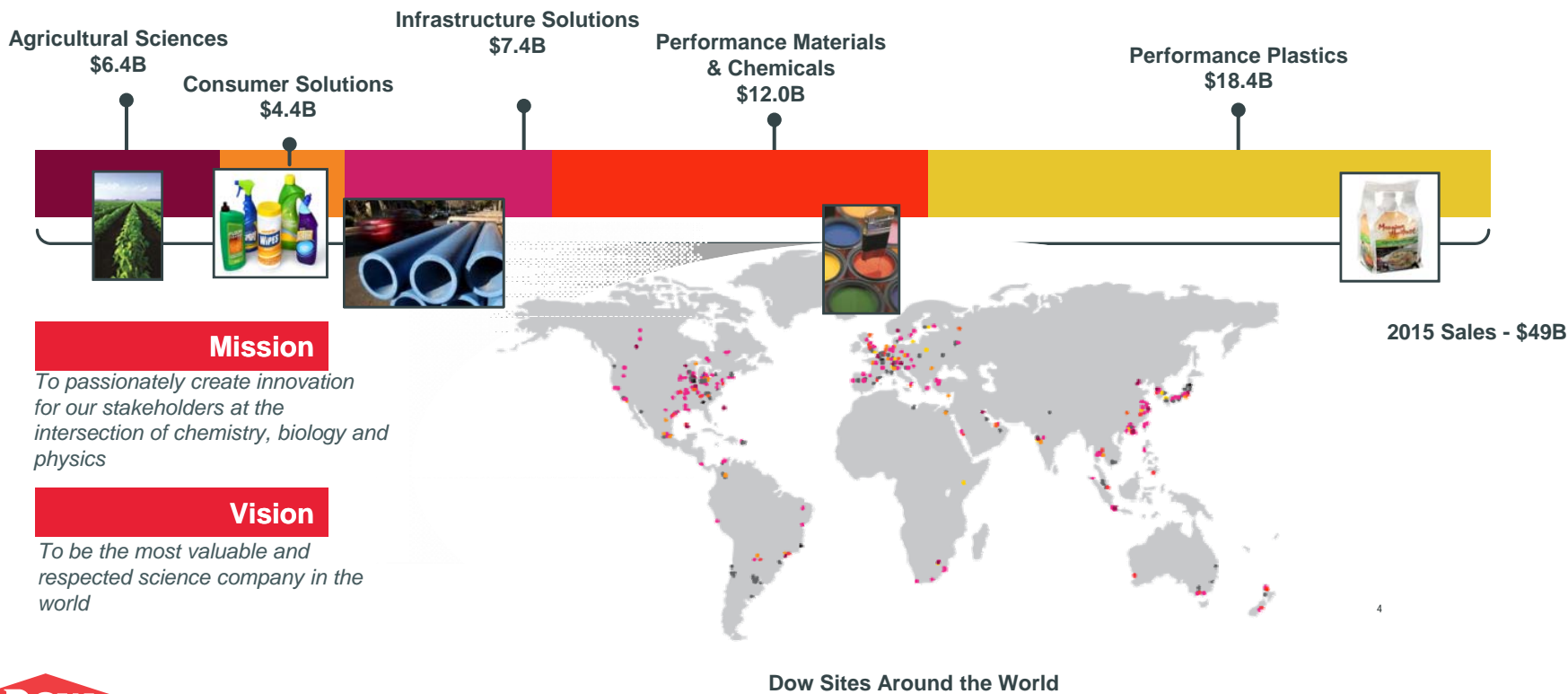


DOW RESTRICTED

Data per tests conducted by Dow. Additional information available upon request. Properties shown are typical, not to be construed as specifications. Users should confirm results by their own tests.

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

# Key Facts About Dow



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

# Dow Packaging and Specialty Plastics - End Markets

## Packaging



One of world's largest materials suppliers for high performing packaging solutions

## Health & Hygiene



Leveraging capabilities in Elastomers, fibers, and polyolefin technology

## Adhesives



Growth portfolio of innovative packaging and laminating adhesives

## Industrial & Consumer Durables



Durable resin technology for pressure pipe, rotomolding, and other non-packaging applications



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

## ■ Dow's Rotomolding Resins

Product	Melt Index (g/10 min)	Density (g/cc)	Typical Applications
DOW™ MDPE DPDA-3135 NT7	3.50	0.938	Agricultural and chemical storage tanks, potable water tanks, recreation/toys, industrial packaging
DOW™ MDPE DPDA-3152 NT7	5.20	0.935	Housewares, recreation/toys, industrial packaging
DOW™ MDPE DPDA-3170 NT7	7.00	0.935	Recreation/toys, industrial packaging, consumer goods
DOW™ HDPE DPDA-3220 NT7	2.00	0.942	Recreation/toys, industrial packaging, consumer goods



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

## Beyond PE: Dow Specialty Resin Offerings

### ➤ Commercial Products

- Ethylene-Based Elastomers
- Propylene-Based Elastomers
- Functionalized Polymers

### ➤ Strong Innovation Pipeline

### ➤ Pellet Form

### ➤ Customers Typically Use as Blend Components





- Elastomer can be major or minor component – application dependent
- Product selection → imparts a variety of attributes:
  - Impact resistance
  - Toughness
  - Low-Temp Performance
  - Clarity
  - Compatibilization
  - Flow Modifiers
  - Soft-touch / haptics
  - Scratch/mar resistance



DOW RESTRICTED

INFUSE™, ENGAGE™, AFFINITY™, AMPLIFY™, VERSIFY™, NORDEL™, and PRIMACOR® are Registered Trademarks of The Dow Chemical Company

## ■ Specialty Resin Overview

Product Family	Features	Uses
 	<ul style="list-style-type: none"> <li>• Improved Impact</li> <li>• Good low temp performance</li> <li>• Good compatibility with other PE or PP based polymers</li> </ul>	<ul style="list-style-type: none"> <li>• Used as a blend component for added performance</li> <li>• Large tubs/containers</li> </ul>
	<ul style="list-style-type: none"> <li>• Adhesion to polar substrates</li> <li>• Good impact properties</li> <li>• Compatible with mixed stream recycle</li> <li>• Clear, scratch resistant and paintable</li> </ul>	<ul style="list-style-type: none"> <li>• Adhesion to Nylon/EVOH/other</li> <li>• Nylon impact modification</li> <li>• Blending recycle</li> </ul>
	<ul style="list-style-type: none"> <li>• Adhesion to metal</li> </ul>	<ul style="list-style-type: none"> <li>• Used as a blend component when adhesion to metal is needed</li> </ul>
<b>XUS 58441.00</b>	<ul style="list-style-type: none"> <li>• High temperature resistance</li> <li>• Good low temp performance</li> <li>• Excellent impact strength</li> </ul>	<ul style="list-style-type: none"> <li>• Soft touch parts</li> <li>• Flexible PVC replacement</li> </ul>

## ■ Unique Attributes of Soft Touch Copolymer

XUS 58441.00 Experimental Soft Touch Copolymer<sup>(1)</sup> offers:

- Soft Touch and Feel
- Abrasion Resistance
- Slip Resistance / Grip
- Impact Resistance
- UV20
- Color Stability
- Great Processability
- Ambient Pulverization
- Adhesion to PE and PP



<sup>(1)</sup> If products are described as "experimental" or "developmental": (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; (3) there is greater potential for Dow to change specifications and/or discontinue production; and (4) although Dow may from time to time provide samples of such products, Dow is not obligated to supply or otherwise commercialize such products for any use or application whatsoever.

<sup>(2)</sup> The addition of a UV stabilizer to a resin does not completely eliminate the effects of UV exposure. Actual results may vary depending on application and other factors such as resin color, transparency and additives. Therefore, actual end-use testing is recommended.

are typical, not to be construed as specifications. Users should confirm results by their own tests.





## ■ Ease Of Processing

XUS 58441.00	
Melt Index	Density
5.0 g/10 min	0.887 g/cc

- Ambient grindable
- Compatible with LLDPE, MDPE and HDPE
- Can be used as a blend component or molded on its own
- No major adjustments needed to standard rotomolding cycles



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

## ■ Keep Dow In Mind For Specialty Resin Needs



**XUS 58441.00**



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

# ■ Questions?

**Contact Info:**

Lauren Besonen

[LEBesonen@Dow.com](mailto:LEBesonen@Dow.com)

989.941.2189

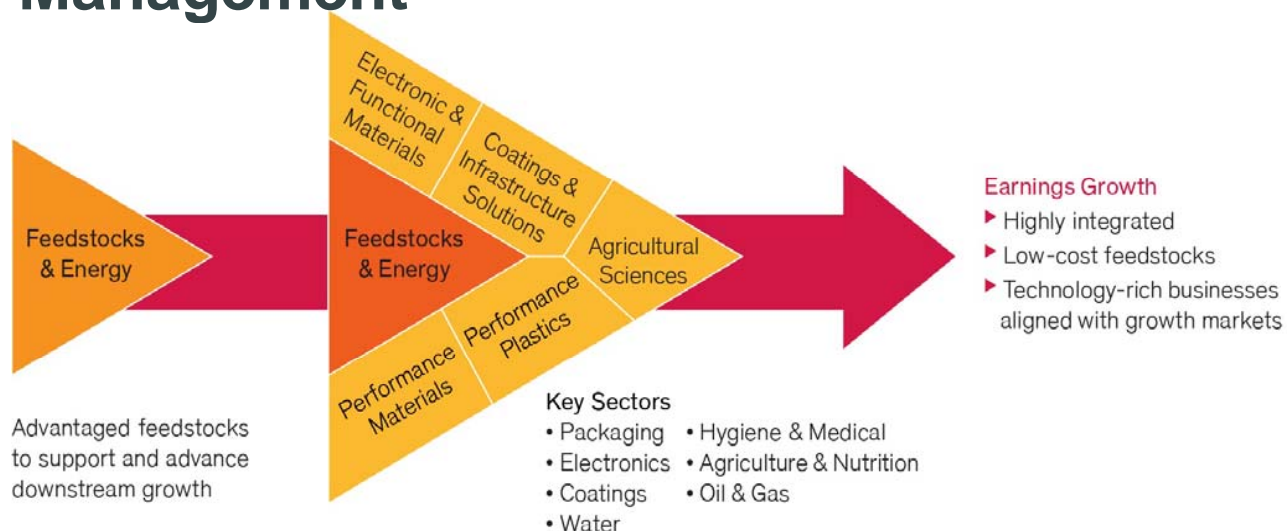


— Thank  
You

 (Extra Slides Below)



# Optimizing Value through Portfolio Management



Aligning Dow's differentiated solutions to fast-growing end-markets where global growth opportunities exist



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

# Copolymers

## Random Olefin Copolymers

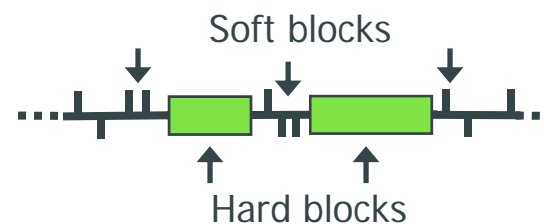


Less comonomer and higher density



More comonomer and lower density

## Olefin Block Copolymers



DOW RESTRICTED

®™Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow