By 2020, global light vehicle production is expected to exceed 100 million units annually. To remain competitive, automotive manufacturers and suppliers must deliver improved fuel economy, safety and premium aesthetics. Solutions from Dow Elastomers help address several of these critical industry needs, such as vehicle weight reduction, durability, safety and aesthetics.

Dow’s elastomer portfolio, coupled with our in-depth knowledge of automotive TPOs and EPDM compound requirements, delivers the innovative, high-performance automotive solutions customers need including: thinner, lower-density parts and high-performance weather-seal solutions. We provide customers with solutions that meet - and can even exceed - requirements for compounding and processing, as well as finished part performance and appearance.

Specialty elastomers from Dow provide a “one-stop-shop” for automotive manufacturers and suppliers, delivering the innovative, high-performance automotive solutions that the market needs tomorrow – today.
Look to Dow for innovative solutions

Plastics and composites play a critical role in helping the automotive industry achieve increasingly aggressive production, performance and fuel efficiency standards. Innovative technology from Dow enables the industry to meet these goals.

One of the most widely used materials in automotive design today are TPOs, which have been widely adopted for use in both exterior and interior applications as a replacement for more traditional materials like metal, as well as engineering thermoplastics, such as ABS and PC/ABS.

As the world’s largest producer of TPOs and a leader in EPDM, Dow offers an innovation-rich portfolio and deep industry experience that delivers solutions for applications across the automotive industry. Included are specialized solutions for:
- Hard TPOs used in automotive exterior and interior applications
- Soft TPOs for instrument panel (IP) skins and other interior components
- EPDM for high-heat resistant, yet flexible, belts and hoses
- Best-in-class weather strip for reliable body sealing
- Durable anti-vibration systems

In addition, elastomers from Dow contribute to:
- Enhanced impact resistance
- Improved weatherability
- Minimized weight
- Improved processing and economics vs. other materials
- Recyclability of parts
Materials of Choice

**ENGAGE™ polyolefin elastomers** have long been the impact modifiers of choice in hard TPO applications. Today, they are contributing to new advances in the performance and processability of both hard and soft TPOs as the use of TPO technology expands across today’s vehicles and the cars of tomorrow.

**Exterior Applications**

- Soft TPOs for simulated leather on door panels and consoles
- Hard TPOs for simulated leather on door panels and consoles
- Hard and soft TPOs for instrument panel components and soft-touch controls
- Hard TPOs for knee bolsters
- Soft TPOs for driver-side airbag covers
- Hard TPOs for instrument panel components and soft-touch controls
- Rear bumper fascia
- Rocker panels
- Side molding
- Front end body panels
- Front bumper fascia

**Interior Applications**

- Soft TPOs for simulated leather on door panels and consoles
- Hard TPOs for interior roof pillar moldings
- Hard TPOs for knee bolsters
- Soft TPOs for driver-side airbag covers
- Hard and soft TPOs for instrument panel components and soft-touch controls

**NORDEL™ EPDM products** are industry-leading materials that offer enhanced processability and impart low temperature toughness to other polymers.

**Automotive manufacturers and suppliers around the globe count on ENGAGE™ POE and NORDEL™ EPDM for:**

- An excellent balance of impact resistance and economy
- Lower density materials for greater impact strength
- Low temperature ductility
- Maximum impact resistance
- Higher flow during processing

**World-class weather-strip technologies** for excellent aesthetics and protection from the elements – creates a better seal to keep out noise, water and dirt

**EPDM elastomers for durable anti-vibration systems** create components that isolate and dampen the noise, vibrations and harshness from wheels, tires, road input and powertrain

**Rear bumper fascia**

**Rocker panels**

**Side molding**

**Front end body panels**

**Front bumper fascia**

**Interior Applications**

- Soft TPOs for simulated leather on door panels and consoles
- Hard TPOs for interior roof pillar moldings
- Hard TPOs for knee bolsters
- Soft TPOs for driver-side airbag covers
- Hard and soft TPOs for instrument panel components and soft-touch controls

**Exterior Applications**

- Soft TPOs for simulated leather on door panels and consoles
- Hard TPOs for simulated leather on door panels and consoles
- Hard and soft TPOs for instrument panel components and soft-touch controls
- Hard TPOs for knee bolsters
- Soft TPOs for driver-side airbag covers
- Hard and soft TPOs for instrument panel components and soft-touch controls
- Rear bumper fascia
- Rocker panels
- Side molding
- Front end body panels
- Front bumper fascia

**High-performance under-the-hood solutions** for belts and hoses
Moving forward
Elastomer technologies continue to evolve to meet the performance needs for TPO applications. The elastomers evolution will need to continue to coincide with advances in materials and process technologies. Many of the trends for performance are well established for existing applications and processes, and further development is being focused on emerging technologies.

Serving you globally
To meet your existing needs today and expanded needs tomorrow, Dow provides global:
- Application and development resources
- Technical service
- Customer service
- Production capabilities
- Raw material integration

Dow simplifies sourcing by providing elastomers for all your production needs. With our global supply chain, you can rely on us to deliver materials where you need them, when you need them—with a variety of packaging options suitable for your operation.

Dow’s broad portfolio of elastomer solutions offers a wide variety of possibilities for the development of automotive TPOs and EPM that deliver components combining excellent performance with ease of processing, improved productivity, better aesthetics and sustainability.

Let us show you how ENGAGE™ polyolefin elastomers and NORDEL™ EPDM can be applied to your process. Learn more at www.dowelastomers.com.

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