ELASTOMERS
Hot and Warm Cast Elastomers

SUPRASEC® MDI
Huntsman Polyurethanes offers a broad range of MDI and MDI-variants, which can be processed via a one shot or quasi prepolymer route. When required, the elastomers can be cast directly onto rigid surfaces and form coverings of varying thicknesses to protect against chemical and mechanical damage.

**Huntsman product offer**

1. **Specialty isocyanates**

   Based on our wide range of specialty isocyanates (MDI and MDI-variants) we are able to serve the elastomer market with robust isocyanate solutions. By changing the type of isocyanate while keeping the same polyol resin, one can vary the corresponding physical mechanical properties.

   **SUPRASEC® MDI product range for hot and warm cast elastomers.**

<table>
<thead>
<tr>
<th>NCO (%)</th>
<th>FN</th>
<th>Viscosity 25°C (mPa.s)</th>
<th>Product description</th>
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<tbody>
<tr>
<td>SUPRASEC® 1306</td>
<td>33.5</td>
<td>2.0</td>
<td>Solid</td>
</tr>
<tr>
<td>SUPRASEC® 2020</td>
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<td>2.1</td>
<td>40</td>
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<td>SUPRASEC® 2010</td>
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</table>

The low functionality of the SUPRASEC® MDI-variants combined with the presence of high level 4-4’ isomer makes those specialty isocyanates particularly suitable for hot cast elastomers.
2. Formulated systems
Upon request, we can provide fully and/or half formulated systems supported with guideline mechanical as well as dynamic properties when processed on conventional casting machinery. Our experienced commercial and technical team will assist you in finding the most efficient and economical solution for your business needs.

Typical applications.

Compact elastomers

Wheels and castors
A full range of polyether and ester grade high performance elastomers are available. All systems have excellent tear and abrasion properties. To date a hardness range from 80 up to 95 Shore A is covered but guidelines on modifications can be provided upon customer request. These characteristics are also valid for applications like liners, wheels and tires, rollers, mining screens, conveyor belts, engineering parts, in-line skate wheels, golf balls.

Concrete moulds
A machine-processable system that combines an excellent abrasion resistance, high tear and tensile resistance with improved solvent resistance.

Paper rolls
A range of high performance ether elastomers with excellent dynamical properties.

Foamed elastomers (fully water blown)

Wheels
Ideal combination of wear and tear excellence with minimal rolling resistance.

High hysteresis foams (good compression set)
A unique system that combines high hysteresis properties with excellent compression set performance.

Low hysteresis foams (good compression set)
A range of systems with excellent noise vibration dampening properties.

Benefits of MDI and MDI-based pre-polymers for elastomer applications

- outstanding mechanical properties such as toughness, abrasion resistance, durability, impact strength
- good adhesion to different substrates
- high chemical versatility of MDI
- low energy consumption
- EH&S friendly
- ease of processing
- wide formulation possibilities
- good low-temperature capability
- excellent chemical resistance
- oil and solvent resistance
(except straight PE technology)
- high moisture resistance
- superb abrasion resistance
- high elastic elastomer
(both compact or foamed)
Huntsman Polyurethanes is committed to working closely with its customers and can offer a fast and flexible response to your needs. We offer direct links to our laboratories with full technical backup. Commercial support and dedicated customer service is available throughout Europe, the Middle East, Asia-Pacific and the Americas.

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About Huntsman:
Huntsman is a global manufacturer and marketer of differentiated chemicals. Our operating companies manufacture products for a variety of global industries, including chemicals, plastics, automotive, aviation, textiles, footwear, paints and coatings, construction, technology, agriculture, health care, detergent, personal care, furniture, appliances and packaging. Originally known for pioneering innovations in packaging and, later, for rapid and integrated growth in petrochemicals, Huntsman has approximately 12,000 employees and operates from multiple locations worldwide. The Company had 2012 revenues of over $11 billion. For more information about Huntsman, please visit the company’s website at www.huntsman.com.

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