



**HUNTSMAN**

Enriching lives through innovation

# Pivotal to product performance

PU elastomers for everyday  
and industrial applications

# Experts in elastomers

Our polyurethanes business division is a leading developer of polyurethane (PU) and thermoplastic polyurethane (TPU) materials. Combining global reach with decades of experience in material innovation, we are experts in urethane-based elastomers and have in-depth knowledge of their application across a vast range of industries.

## A global, dedicated partner for PU elastomers

We offer a mix of pure MDI, specialty MDI and polyurethane-based systems to the global elastomers market. Renowned for their versatility, durability and easy processability, our PU elastomers can be used across diverse applications and industries including:

- The manufacture of cast elastomers
- Electric and electronic encapsulation
- Modeling, tooling and prototyping (MTP)
- Noise vibration dampening (NVD)
- Synthetic leather.



# Delivering elastomers innovation

Our polyurethane elastomers product range includes:

## **SUPRASEC® specialty isocyanates:**

This family of high performance polyurethane raw materials includes fully water-blown systems based on both polyester and polyether technology. Cost effective, versatile, easy to use, and offering advanced physical properties, these elastomers are ideal for use across a wide range of markets and applications.

## **DALTOPED® fully formulated systems:**

Our range of DALTOPED® water-blown systems includes polyester-based products that offer superior strength and abrasion resistance, alongside polyether-based systems that have an inherent resistance to hydrolysis and microbial attack.

## **ACOUSTIFLEX® advanced acoustic solutions:**

This innovative portfolio of formulated polyurethane systems is designed for use in transportation and construction-related NVD applications.

Through our Tecnoelastomeri business, we provide a wide range of off-the-shelf and custom made hot-cast elastomers. Under our **TECNOTHANE®** and **DALTOCAST®** brands, we offer hot-cast elastomers that provide good chemical resistance and excellent mechanical characteristics. This includes engineering elastomers, which are exceptionally resilient and designed for use in extreme working conditions.

We also make our own range of high performance **CASTECH™** casting machines. These machines are used for processing hot cast elastomer systems including our **TECNOTHANE®** range.

For more information, go to [www.tecnoelastomeri.com](http://www.tecnoelastomeri.com) or refer to the Huntsman Tecnoelastomeri brochure.

# Key applications

## Cast elastomers

**Hot cast elastomers:** Through our Huntsman Tecnoelastomeri business we offer a range of fully formulated hot cast elastomer systems that can be used to make wheels, castors, seals, rollers, pads, sheets and other industrial parts.

**Cold cast elastomers:** Designed for use at room temperature, without the need for heat curing, our cold cast elastomer systems are incredibly easy to work with and have a long open time. With soft to hard grades available, and multiple options in between, these elastomers are renowned for their versatility and durability.



## Electric and electronic encapsulation

With intrinsic electrical insulation properties, our polyurethane elastomers can be used to protect copper wires and to formulate filled and unfilled hermetic sealing systems for electrical and electronic devices.



## Modeling, tooling and prototyping (MTP)

We offer the very latest innovations in polyurethane technology for the manufacture of board and block materials for MTP applications. Inherently stable, our polyurethane elastomers can be used to create modeling materials that can be easily shaped and machined into durable tools and molds that have a smooth, homogenous finish.



## Synthetic leather

Our polyurethane elastomers can be used to create synthetic materials that resemble leather for upholstery, clothing and footwear applications. We also offer UV curable solutions that are free from dimethyl formamide - enabling solvent-free production.

## Noise vibration dampening (NVD)

We offer a range of polyurethane-based elastomers that deliver excellent acoustic insulation and vibration dampening properties, as well as exceptional compression stress performance. Delivering distinct processing advantages, these materials have a fast production cycle compared to rubber and can be used in NVD applications including rail pads, ballast mats, spring aids, floor bearings and wall linings.



# Product description

## Polymeric:

This is a complex mixture of molecules containing MDI isomers with different functionality.

## Pure:

A SUPRASEC® is considered as pure when it contains mainly 4,4'-MDI and less than 2% of 2,4' isomers.

## Variants:

This is a mixture between pure, 2,4' isomers and polymeric MDI. Different grades may have different ratio of this two.

## Prepolymers:

This is formed by mixing an excess of MDI with a polyol.

## Technical information and processing advice:

Please note that further technical data about SUPRASEC®, DALTOPED®, ACOUSTIFLEX® plus best practice advice for handling and processing our elastomers is available by contacting:

[Elastomers\\_EAIME@huntsman.com](mailto:Elastomers_EAIME@huntsman.com)

# Infinite scope for innovation

## SUPRASEC®: Key products

Product type	Characteristics	Product name	NCO, % (±0.5%)	Average functionality	Viscosity @ 25°C (mPa.s)		
Polymeric MDI	High functionality	SUPRASEC® 2085	30,5	2,9	625		
		SUPRASEC® 2211	31,2	2,7	210		
		SUPRASEC® 5025	31,0	2,7	195		
Variants	Mid functionality	SUPRASEC® 2015	27,3	2,2	165		
		SUPRASEC® 2030	28,6	2,3	175		
		SUPRASEC® 2050	30,4	2,5	130		
		SUPRASEC® 2214	31,9	2,2	30		
		SUPRASEC® 2330	32,1	2,4	30		
		SUPRASEC® 2447	32,6	2,2	25		
		SUPRASEC® 2487	31,2	2,5	80		
		SUPRASEC® 2496	31,3	2,5	133		
		SUPRASEC® 2651	32,4	2,3	23		
		SUPRASEC® 2656	31,5	2,2	60		
		Pure MDI	Low functionality	SUPRASEC® 2020	29,5	2,1	40
				SUPRASEC® 2385	30,9	2,0	27
				SUPRASEC® 2388	29,7	2,1	30
				SUPRASEC® 4102	29,7	2,0	25
Prepolymers	Mid functionality	SUPRASEC® 1306	33,5	2,0	5 @50°C		
		SUPRASEC® 1004	32,7	2,0	12,5		
Prepolymers	Mid functionality	SUPRASEC® 2012	25,0	2,2	500		
		SUPRASEC® 2060	16,0	2,5	2450		
		SUPRASEC® 2216	25,6	2,2	120		
		SUPRASEC® 2234	15,9	2,5	2500		
		SUPRASEC® 2416	23,8	2,1	185		
		SUPRASEC® 2525	24,6	2,1	310		
	Low functionality	SUPRASEC® 2535	13,0	2,3	2750		
		SUPRASEC® 1007	6,8	2,1	5500		
		SUPRASEC® 2004	32,8	2,0	12,5		
		SUPRASEC® 2008	10,2	2,0	1700		
		SUPRASEC® 2010	26,3	2,1	140		
		SUPRASEC® 2018	26,2	2,1	150		
		SUPRASEC® 2021	23,2	2,0	975		
		SUPRASEC® 2029	24,4	2,1	500		
		SUPRASEC® 2054	14,9	2,0	765		
		SUPRASEC® 2217	22,1	2,1	375		
		SUPRASEC® 2433	19,0	2,0	335		
		SUPRASEC® 2733	19,3	2,0	320		
SUPRASEC® 2904	21,7	2,0	750				
SUPRASEC® 2954	13,2	2,0	1470				
SUPRASEC® 2980	19,0	2,0	1100				
SUPRASEC® 2981	19,0	2,0	1100				
SUPRASEC® 2989	30,5	2,0	5000				

We also offer polyols. For more information, please contact: [Elastomers\\_EAIME@huntsman.com](mailto:Elastomers_EAIME@huntsman.com)

# Global elastomers experts

**Committed to customers:** We build partnerships with our customers and work across an international network of R&D and manufacturing locations to help solve complex challenges and deliver the highest levels of technical support and customer care.

**Committed to quality:** Wherever we are, whatever we are doing, we prioritize environmental, health and safety protection, and we are always rigorous about quality control and assurance.

**Committed to innovation:** We keep pace with the most innovative trends in plastics processing by using the latest equipment and making regular investments in our formulation, manufacturing and R&D capabilities.

**Committed to sustainability:** We create solutions that contribute to a more sustainable society by helping to conserve energy, preserve natural resources and reduce our overall carbon footprint.



## HUNTSMAN

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### About Huntsman:

Huntsman Corporation is a publicly traded global manufacturer and marketer of differentiated and specialty chemicals with 2018 revenues of more than \$9 billion. Our chemical products number in the thousands and are sold worldwide to manufacturers serving a broad and diverse range of consumer and industrial end markets. We operate more than 75 manufacturing, R&D and operations facilities in approximately 30 countries and employ approximately 10,000 associates within our four distinct business divisions.

Huntsman Corporation warrants only that its products meet the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, HUNTSMAN MAKES NO WARRANTY OR GUARANTEE OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OF ANY THIRD PARTY, OR WARRANTIES AS TO QUALITY OR CORRESPONDENCE WITH PRIOR DESCRIPTION OR SAMPLE, AND ANY USER OF PRODUCTS DESCRIBED HEREIN SHOULD CONDUCT A SUFFICIENT INVESTIGATION TO ESTABLISH THE SUITABILITY OF ANY PRODUCT FOR ITS INTENDED USE AND ASSUMES ALL RISK AND LIABILITY WHATSOEVER RESULTING FROM THE USE OF SUCH PRODUCT, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER SUBSTANCES. Products may be toxic and require special precautions in handling. For all products described herein, the user should obtain detailed information on toxicity, together with proper shipping, handling, and storage procedures, and should comply with all applicable safety and environmental standards. The behavior, hazards and/or toxicity of the products referred to in this publication in manufacturing processes and their suitability in any given end-use environment are dependent upon various conditions such as chemical compatibility, temperature, and other variables, which may not be known to Huntsman. It is the sole responsibility of the user of such products to evaluate the manufacturing circumstances and the final products under actual end-use requirements and to adequately advise and warn future purchasers and users thereof.

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