



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 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

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
	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
	Pure MDI		SUPRASEC® 1306	33,5	2,0
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
		SUPRASEC® 2535	13,0	2,3	2750
		Low functionality	SUPRASEC® 1007	6,8	2,1
	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

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.



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EUROPE

Everslaan 45
3078 EVERBERG
BELGIUM
Phone: +32 2 758 92 11

Elastomers_EAIME@huntsman.com

USA

10003 Woodloch Forest Dr
The Woodlands, TX 77380
Phone: +1 281 719 6000

Elastomers_Americas@huntsman.com

CHINA

No 479 Wen Jing Road
Minhang Development Zone
Shanghai 200245
Phone: +86 21 3357 6527

Elastomers_APAC@huntsman.com

www.huntsman.com

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.

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