

**HUNTSMAN**

Enriching lives through innovation

Polyurethanes

# Trusted MDI-based polyurethane solutions

for the global automotive industry



# Performance through partnership

With over 60 years' experience in MDI-based polyurethane technologies, Huntsman helps automotive businesses worldwide to create high-performance material solutions for seating, acoustic, and interior trim applications.

Today almost every new car on the road features Huntsman technology. Our products and expertise are trusted by global car manufacturers and suppliers. As your partner, we work from initial design to final production to create exceptional end-products that are cleaner, lighter, stronger and comfortable.

## Why Huntsman Polyurethanes?



### Cleaner

Control odour depending on your markets' requirements, while complying with international VOC (volatile organic compound) regulations.



### Lighter

Create strong yet lightweight materials that save space and reduce the weight of your car to lower fuel consumption and emissions.



### Comfortable

A high-quality, soft, and quiet interior is a key part of the overall driving experience and a major differentiator for the success of your car brand.



### Circular

Our MDI-based polyurethane technologies enable you to maintain technical performance while considering bio-based or recycled material content.





# Versatile solutions for automotive applications

Huntsman's MDI and MDI-based polyurethane solutions are fully formulated systems, components, and prepolymers that enable you to create high-quality materials with specific properties for automotive applications.

Our complete portfolio of polyurethane technologies are the industry's best choice for:

- High comfort seating
- Acoustics with reduced odour and VOC
- Vibration-dampening fittings
- Lighter and stronger composite parts

## A cooperative approach to success

We will collaborate with you throughout the process to help you develop solutions that meet your customers' needs in full compliance with Automotive ISO and Technical Standards.

## Leverage our expertise and resources

Our commitment to service and excellence also covers comprehensive technical support. Through our global research and development centres, you get complete access to:

- Extensive characterisation equipment for mechanical testing of resins, composites, and thermomechanical properties
- Dedicated set-ups to develop customer-specific formulations
- On-site testing and staff training



# Accelerate your future design ambitions

## 1 RUBIFLEX®

Polyurethane systems and components developed for seating applications

### Benefits

- Advanced comfort and support
- Advanced durability
- Specific vibration dampening properties
- Low emission and odour
- On-demand performance with fully formulated systems and/or components
- Improving sustainability through bio-content (RUBIFLEX® HR-BIO polyurethane system)

### Applications

- Motorcycle and power sports saddles
- Industrial vehicle seating
- Headrests
- Armrests
- Seat cushions
- Seat backs
- Center consoles

## 2 ACOUSTIFLEX®

Polyurethane systems developed for acoustic applications

### Benefits

- Acoustic absorption and insulation
- Dynamic noise vibration dampening
- Low emission and odour
- Good thermal performance
- Compliance with wide range of flammability requirements
- Lightweight
- Cost effective
- Fast cycle times for production efficiency

### Applications

- Wheelhouses
- Transmission tunnel insulators
- Carpets
- Carpet underlays
- Inner dashes
- Stuffer pads
- Bonnet/hood liners
- Headliners
- Engine and e-motor encapsulations
- Engine top covers

## 3 VITROX®

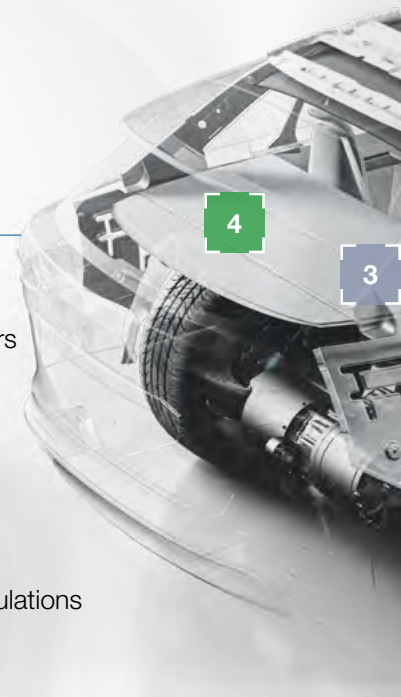
Polyurethane systems developed for advanced composites

### Benefits

- Broad range of Tg
- Specific combination of high toughness and high stiffness (modulus) for lighter, more durable parts
- Tunable work-life followed by snap-cure, for wider processing windows and extremely short cycle times
- Versatile processing, enabling high volume production
- Compatibility with various manufacturing techniques (Resin Transfer Moulding, Spray-up, Winding)

### Applications

- Floor/seat pans
- Roof modules
- Battery enclosures
- Bonnets/hoods
- Interior trims
- Leafsprings
- Underfloor panels
- Truck beds





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## RIMLINE®

### Polyurethane systems developed for composites

#### Benefits

- High toughness combined with good mechanical properties
- Flexible manufacturing with or without IMR
- Fast curing, resulting in high productivity
- Proven solution for Resin Transfer Moulding (RTM), Pultrusion, and Honeycomb spray compression moulding and core foam moulding

#### Applications

- Floor/seat pans
- Truck beds
- Bonnets/hoods
- Load floors
- Parcel trays
- Sunshades
- Composite core foams
- Interior trims

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## RUBITRIM®

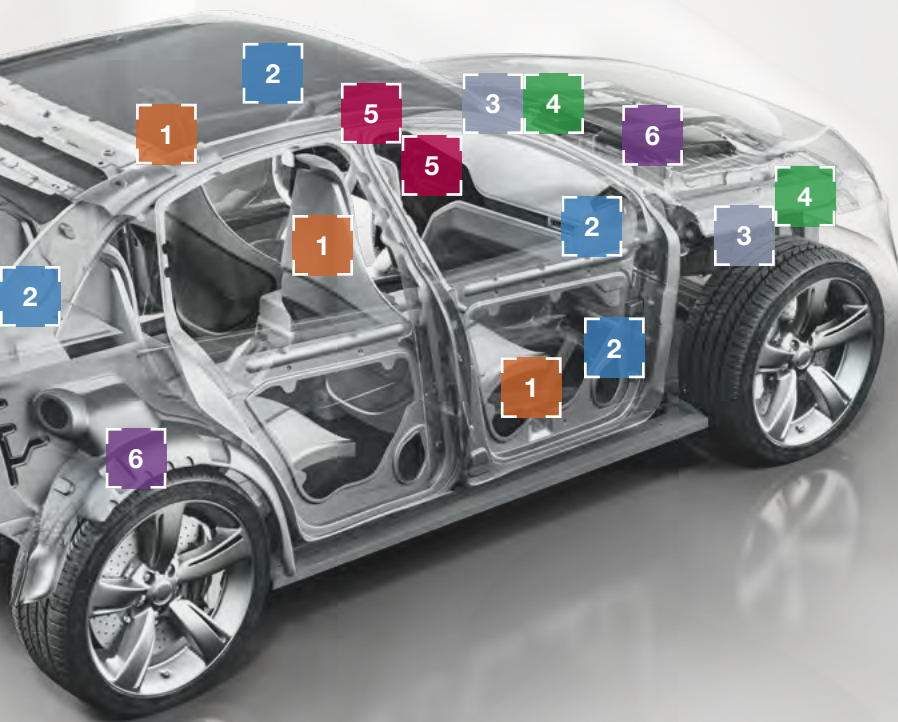
### Polyurethane systems developed for interior applications

#### Benefits

- Low emissions
- Compatibility with PVC skins
- Very good part-to-part reproducibility
- Robust processing
- A fast cure for improved manufacturing speeds
- Meets wide range of OEM specification requirements

#### Applications

- Interior trims
- Instrument panels
- Steering wheels
- Air filters and gaskets
- Energy absorption/crash pads
- Integral skins for interior components



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## SHOKLESS™

### Polyurethane elastomeric systems developed for vibration dampening

#### Benefits

- Very good compression stress performance
- Good physical and mechanical properties
- Fewer design restrictions compared to rubber
- Weight-saving opportunities
- Easy processing when compared to alternative elastomers

#### Applications

- Jounce bumpers
- Engine mounts
- Seals
- Spring aids



# A lighter, cleaner, and comfortable future

Our MDI-based solutions enable you to improve production efficiency and sustainability, while creating lighter, cleaner, safer, and more durable end-products that meet your – and your customers' – expectations for performance and quality.

Covering seating, acoustic, and composite applications, we are ready to support you with enhanced technologies and personalised service from our global team of experts.

## Why MDI?

- Lightweight and durable
- Very good acoustic dampening
- Greater design freedom
- Tunable physical properties
- Lower emission and odours
- Flexible manufacturing process
- Cost effective and sustainable

## With Huntsman, you can be sure of:

### • Customized service

We want you to get the best from our people, not only our products. That's why we try to make sure you get everything you need, including product design support, production training, and aftersales care.

### • Leading expertise

After 60 years, we have amassed a vast amount of experience and expertise in MDI and MDI-based polyurethane technologies that meet specific challenges for car design and manufacturing.

### • Full commitment

We are committed to quality and, as your partner, we take pride in delivering solutions for our customers, which include quality control and sustainability.

### • Close collaboration

We will work with you from the start of your design project through to final production, to try to ensure your production is cost effective and your commercial needs are met.

### • Long-term success

We are your partner, not just your provider, with a long-term view of your success. Together, we will try to deliver solutions that keep you competitive and compliant far into the future.

Contact us today:

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Scan here to  
submit an inquiry



# Towards sustainability

As we move towards a more carbon neutral and circular society, automotive businesses are searching for alternative resources to fossil-based chemistry. This involves moving towards renewable bio-based, recycled materials and low carbon e-mobility. At Huntsman, we are dedicated to the development of sustainable solutions that support the industry's environmental ambitions.

As a signatory to the United Nations Global Compact (UNGC) – the world's largest voluntary corporate citizenship initiative – our work is guided by the UN's 17 Sustainable Development Goals. All 17 UN Sustainable Development Goals are important to our business – with three of particular relevance to our automotive-focused polyurethanes technology.

## 3 GOOD HEALTH AND WELL-BEING



Increase safety and comfort

## 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Optimal use of primary, secondary, and renewable resources for improved productivity and lightweight designs.

## 13 CLIMATE ACTION



Support the transition to electrification, reduce fuel consumption by saving weight, and lower the carbon footprint of product portfolios.



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Hazards, toxicity and behavior of the products may differ when used with other materials and are dependent on the manufacturing circumstances or other processes. Such hazards, toxicity and behavior should be determined by the user and made known to handlers, processors and end users.

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