

## Polyurethanes

# A range of technologies including bio-based and recycled content

### **Developed for automotive applications**



#### **ACCELERATING SUSTAINABILITY**

Ambitious net zero targets are driving forward the evolution of the automotive industry. With consumers making a clear shift towards solutions that have less environmental impact, the sector is accelerating its search for alternative options to traditional fossil-based chemistries to use across all aspects of vehicle design.

#### HUNTSMAN - AN INNOVATIVE SUPPLIER OF BIO- & RECYCLED-BASED TECHNOLOGIES

A leading supplier of polyurethane materials to the global automotive industry, Huntsman is committed to helping the sector achieve its sustainability goals and is working towards adapting some of its best-known technologies to successfully incorporate bio-based or recycled content, without compromising performance or quality.

Offering a range of options across acoustic, comfort and composite applications, these technologies can help you to meet automotive specification and performance expectations. Including bio-based and recycled content levels up to 20%, they can enable a potential reduction in carbon footprint of up to 25%<sup>\*</sup> compared to incumbent solutions.

Huntsman has the ability to track and certify the use of bio-, bio-circular, or recycled-based feedstocks in its MDI and polyol production. Since November 2022, Huntsman's European MDI manufacturing facilities have achieved the International Sustainability & Carbon Certification (ISCC PLUS) for mass balance, to help customers looking to further reduce the attributed carbon footprint of automotive products.

#### **TYPICAL BENEFITS:**

- Potential contribution of up to 25%\* reduction in CO<sub>2</sub> footprint
- Can help to meet major automaker specifications and quality targets
- Compatible with existing foaming production installations
- Comparable viscosity to existing technologies product consistency and mixing is unaffected
- No extra material stream required
- · Good curing characteristics, green strength, and stability
- Low odor and low emission
- Can contribute towards reaching desired mechanical properties
- Low impact on dynamic performance.

\* Comparison with Huntsman incumbent technologies. Source: Preliminary LCA results – cradle-to-Huntsman gate. Component for manufacturing of polyurethane systems. LCA method GWP<sub>100</sub> including biogenic CO<sub>2</sub> CML2016. Software: LCA for Expert 2023.2.

#### **OUR FAMILY OF BIO- & RECYCLED-BASED TECHNOLOGIES**

Our range of bio- and recycled-based technologies can offer comparable performance levels to currently available technology solutions – plus the potential to promote exciting, new, and expected sustainable credentials to OEMs.

| ACOUSTIFLEX <sup>®</sup><br>range developed for<br>advanced acoustics –<br>can offer up to a $25\%^*$<br>CO <sub>2</sub> reduction in foam                                                            | <b>RIMLINE</b> <sup>®</sup><br>range developed for<br>quick cure composite<br>solutions including<br>battery protection – can<br>help to deliver additional<br>CO <sub>2</sub> reductions                                                                                                                                          | RUBIFLEX <sup>®</sup><br>range developed for<br>greater comfort – can<br>offer up to a $25\%$ * CO <sub>2</sub><br>reduction in foam                                                            | RUBITRIM <sup>®</sup><br>range developed for<br>a luxurious tactile<br>experience – can offer<br>up to a 15%* CO <sub>2</sub><br>reduction in foam                          | SUPRASEC <sup>®</sup><br>range developed<br>to help deliver<br>additional<br>attributed<br>CO <sub>2</sub> reductions                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Our acoustic solutions<br>can include bio-and<br>recycled-based content<br>for potential applications<br>such as:<br>• Carpet inlays<br>• Dash insulations<br>• Wheelhouses<br>• Transmission tunnels | Our composites solutions<br>can include bio- and<br>recycled-based content<br>that can help advance<br>automotive electrification.<br>Potential applications<br>include:<br>• Battery enclosures<br>• Battery underbody panels<br>• Battery top cover<br>• Load Floors<br>• Floor and seat panels<br>• Parcel Trays<br>• Sunshades | Our seating solutions<br>can include bio- and<br>recycled-based content<br>for potential applications<br>such as:<br>• Molded seat pads<br>• Head restraints<br>• Armrests<br>• Console backing | Our interior solutions<br>include bio- and<br>recycled-based content<br>for potential applications<br>such as:<br>• Instrument panels<br>• Door panels<br>• Steering wheels | Our SUPRASEC® MB<br>diisocyanate portfolio<br>contains a mass-<br>balanced allocation<br>of bio and recycled<br>content. Commonly<br>used in PU-based<br>comfort applications<br>in private vehicles,<br>SUPRASEC® MB<br>MDI can be supplied<br>as independent<br>components or as part<br>of a fully formulated<br>foam system – helping<br>to enable quantifiable<br>CO <sub>2</sub> reductions. |

\* Comparison with Huntsman incumbent technologies. Source: Preliminary LCA results – cradle-to-Huntsman gate.

Component for manufacturing of polyurethane systems. LCA method GWP<sub>100</sub> including biogenic CO<sub>2</sub> CML2016. Software: LCA for Expert 2023.2.

#### DRIVING FOR SUSTAINABILITY

Our new bio- and recycled-based content technology platform supports several United Nations Sustainable Development Goals (SDGs).



Maintain safety and comfortLow VOC (volatile

organic compound) emissions and low odor

| 19 | RESPONSIBLE   |   |
|----|---------------|---|
| IC | CONSUMPTION   | • |
|    | ANDPRUDUCTION |   |
|    |               |   |
|    |               |   |

Retain fast cool down

- Keep quick cycle times
- Maintain product consistency
- Reduce reliance on fossil-based feedstocks
- 13 CLIMATE
- Preserve lightweight designs
- Better fuel consumption
- Lower carbon footprint

#### **CONTACT US**

For more information about the sustainable solutions within our full suite of automotive products, please go to Huntsman.com and complete the Polyurethanes Contact Us form. Use the QR code to find the form.



# Scan to contact

#### HUNTSMAN AUTOMOTIVE SOLUTIONS

Huntsman is a global leader in MDI-based polyurethanes, serving automotive customers along the value chain. Huntsman delivers innovative, value-added solutions to the world's best-known car brands. Specialisms include lightweight, enhanced comfort and working towards sustainability ambitions in seating, interior trim, acoustic insulation, and composite panel applications.

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Products may be toxic and require special precautions in handling. The user should obtain Safety Data Sheets from Huntsman Polyurethanes containing detailed information on toxicity, together with proper shipping, handling and storage procedures, and should comply with all applicable safety and environmental standards. Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent on the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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