HUNTSMAN

Enriching lives through innovation

Polyurethanes

RUBIFLEX® HR BIO polyurethane system

Developed for up to 25% CO_2 footprint reduction* in automotive seat foam without compromising comfort and quality

PRODUCT DESCRIPTION

RUBIFLEX® HR BIO polyurethane system or components, are formulated to offer high resiliency, flexible seating foam that contains 20% bio-based and recycled content, while meeting key comfort and quality specifications.

Automakers are now demanding bio-based and recycled materials to enable a reduction in the CO_2 footprint of key materials used in automotive manufacturing. As the producer of polyurethane technology used globally in vehicles, Huntsman initiated its sustainability journey years ago to meet and exceed these emerging needs.

FEATURES

- Excellent support, compression sets, hysteresis performance and vibration transmission performance
- Contains a mix of recycled PET bottles and bio-based content to meet the 20% target set by automakers, using polyols from Huntsman's world-class TEROL® polyol manufacturing facility. Today, Huntsman recycles over 1 billion PET water bottles in the U.S. annually.
- Technology adaptable to the most common natural oil by-product available in each region

TEROL® SPECIALTY POLYOLS

BENEFITS

- Contributes up to 25% reduction in CO_2 footprint* of seat foam
- For seat cushion, backrest and headrest foam typically in the 50 kg/m^3+ density range
- Meets or exceeds major automaker specifications in comfort and quality targets
- Works within existing process and tools
- Low emission and low odor

*Internal LCA study, CML GWP including biogenic CO_2 indicator

TYPICAL SYSTEM PROPERTIES

RUBIFLEX® HR BIO polyurethane system for seat foam can meet the varied needs of automotive manufacturers. The following table provides an overview of the typical properties:

Test	Standard	Units	
Density Range	ASTM D 3574, Test A	kg/m^3	50-80*
Hysteresis Loss	FLTM BO 121-01	%	29.2
Heat Aged Tensile Percent of Unaged	ASTM D 3574 Test E Test K	%	115%
Heat Aged Elongation Percent of Unaged	ASTM D 3574 Test E Test K	%	114%
Tear Resistance	ASTM D624, Die C	N/m	521
Wet Compression Set 50% C(t)	ASTM D 3574, Test D,L	%	3.9
Wet Aged CFD Loss	ASTM D 3574, Test C, L	Ct	0.8%
Hardness Loss	ASTM D 3754, Test I3	%	15
Thickness Loss	ASTM D 3754, Test I3	%	0.8

*These physical properties are typical for a 53 kg/m^3 seat foam.

Typical properties can vary depending on local circumstances and application. These properties are not part of the specifications of RUBIFLEX® systems.

ABOUT TEROL® POLYESTER POLYOLS

Huntsman utilizes a proprietary process that enables the use of bio-based feedstock and the upcycling of PET (polyethylene terephthalate) waste streams, that otherwise would be destined for landfills or oceans. This recycled waste is used to produce TEROL® polyester polyols, a critical ingredient in the production of MDI-based polyurethanes such as seat foam in vehicles.

DRIVING FOR SUSTAINABILITY

The drive to 25% CO_2 footprint reduction in seating foam starts with an overall goal to transform the world. To continue to support the United Nations Sustainable Development Goals, three are of relevance to our work in transportation sectors:

- Low Volatile Organic Compound (VOC) emissions
- Comfort

- Quality consistency
- Lower production waste
- Renewable and secondary resource feedstock

- Reducing reliance on fossil fuel based feedstocks

CONTACT US

For more information about our sustainable seating foam or any MDI-based solutions within the full suite of automotive products, please go to Huntsman.com and complete the Polyurethanes Contact Us form.

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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, including lightweight, enhanced comfort and sustainable technologies for seating, interior trim, acoustic insulation, and composite panel applications.