

LANXESS: New low monomer urethane prepolymers for adhesives and sealants

- **Less than 0.1 percent free MDI**
- **Improved industrial hygiene**
- **Excellent performance, processing, and productivity**

Cologne – Specialty chemicals company LANXESS presents new low monomer products for adhesives and sealants at UTECH Europe 2018. With its Adiprene LF products the Urethane Systems business unit brings unparalleled performance and industrial hygiene to cast elastomers, coatings, adhesives and sealants applications. The company is a leading innovator in the development of Low Free (LF) isocyanate technology, on which the products are based.

“The focus of our development work is to broaden the range of prepolymers with very low free isocyanate content,” explains Dr. Markus Eckert, Head of Urethane Systems, “and to keep reducing the maximum amount of free isocyanate content.”

The Adiprene LF product range has been extended to include grades with less than 0.1 percent free MDI (methylene diphenyl diisocyanate) for adhesives and sealant applications. These new LF prepolymers offer three key benefits:

- Improved industrial hygiene
- Excellent performance
- Better processing and increased productivity

Improved industrial hygiene

Adiprene LF urethane prepolymers minimize potential exposure to free isocyanate, a subject of increasing regulatory focus. LANXESS is the only manufacturer offering LF urethane prepolymers with levels of free isocyanate below 0.1 percent across a wide range of

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Page 1 of 4

chemistries, including MDI, IPDI, HDI, TDI, and pPDI. The specialty chemicals company is constantly working to broaden this offering even further.

Adiprene LF prepolymers enable improved industrial hygiene during handling and processing. They protect workers and users from potential exposure to residual isocyanate, minimize EH&S workload, and can result in systems with reduced hazard classifications. “Our low free prepolymers meet the latest regulatory standards with regard to industrial hygiene and worker safety, so that the formulator can minimize required protective measures,” says Eckert.

Excellent performance, processing, and productivity

Adiprene LF prepolymers are chemically structured to provide superior performance, including viscosity for wetting and coverage, tensile and tear strength for improved adhesion, and resistance to heat, moisture, and chemicals for harsher environments. The unique synthesis of these prepolymers also results in more consistent performance batch to batch.

Adiprene LF prepolymers enable the formulators to streamline their manufacturing processes. With the ability to achieve lower viscosity than conventional alternatives, LF prepolymers enable formulators to minimize the use of solvents. By controlling the chemical structure, these prepolymers offer more consistent processing in terms of open time.

“These prepolymers are used in the most demanding applications,” Eckert continues. “With LF technology, our scientists can tailor prepolymers to achieve the desired properties and processing characteristics that the formulator needs.”

The LANXESS Urethane Systems business unit is one of the world’s leading suppliers of polyurethane systems for elastomers, coatings, adhesives and sealants with special focus on solvent-free and

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Page 2 of 4

monomer-free systems, and provides its customers decades of urethane chemistry know-how, comprehensive application expertise, and deep manufacturing experience.

LANXESS is a leading specialty chemicals company with sales of EUR 9.7 billion in 2017 and about 19,200 employees in 25 countries. The company is currently represented at 74 production sites worldwide. The core business of LANXESS is the development, manufacturing and marketing of chemical intermediates, additives, specialty chemicals and plastics. Through ARLANXEO, the joint venture with Saudi Aramco, LANXESS is also a leading supplier of synthetic rubber. LANXESS is listed in the leading sustainability indices Dow Jones Sustainability Index (DJSI World and Europe) and FTSE4Good.

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Forward-Looking Statements

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Information for editors:

All LANXESS news releases and their accompanying photos can be found at <http://press.lanxess.com>. Recent photos of the Board of Management and other LANXESS image material are available at <http://photos.lanxess.com>. TV footage can be found at <http://globe360.net/broadcast.lanxess/>.

You can find further information concerning LANXESS chemistry in our WebMagazine at <http://webmagazine.lanxess.com>.

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Page 3 of 4

News Release

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Image



LANXESS Urethane Systems business announces new MDI prepolymers with less than 0.1 percent free monomer for adhesives and sealants applications.

Photo: LANXESS AG