

### High performance wheel solution

- **Adiprene LFM C525 wheel performs as well as the highest industry standard**
- **Generating less internal heat while in operation**
- **LANXESS Urethane Systems wheel model supports the evaluation of Adiprene LFM C525 in different wheel designs and load/speed conditions**

**Cologne** – Specialty chemicals company LANXESS recently launched the new system Adiprene LFM C525 cured with Vibracure 2101 developed for the most challenging wheel applications. This MDI polycaprolactone based prepolymer offers excellent performance and great dynamics such as high tear strength, outstanding fatigue and abrasion resistance. To demonstrate the performance and reliability of this differentiated system to the market, LANXESS undertook testing comparing the material with the highest industry standard utilized in polyurethane wheels.

#### Proven performance and value creation

Adiprene Low Free (LF) MDI C525 is a polycaprolactone based prepolymer with a level of free MDI less than 1%. When cured with Vibracure 2101, the system delivers a 96 Shore A material. Lower hardness elastomers are also possible with variants of Vibracure 2101. Tests were carried out at different loads, speeds and wheel geometries and followed ISO industry standards. In conclusion the system has proven to perform as good as the highest performance industry standard, delivering great dynamics but also a lower rolling resistance allowing energy savings. In addition to the excellent performance Adiprene LFM C525 prepolymer is easy to process, requiring on average 16-24 hours at 115-120 °C post cure time, and it is stable at room temperature for ca. 36 month.

#### LANXESS AG

Contact:  
Michael Fahrig  
Corporate Communications  
Spokesperson  
Trade & Technical Press  
50569 Cologne  
Germany

Phone +49 221 8885-5041  
michael.fahrig@lanxess.com

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### **A differentiated low free MDI based solution**

This PU system is a unique LANXESS solution, whereby the LF isocyanate technology facilitates the use of this differentiated curative. The LF technology avoids the “starring” effect which creates “star” shaped crystals within the elastomer due to curative precipitation. Along with easier handling and excellent performance, the LF technology also brings unsurpassed health and safety conditions to the processor.

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Michael Fahrig  
Corporate Communications  
Spokesperson  
Trade & Technical Press  
50569 Cologne  
Germany

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### **A complete solution for the wheel industry**

Understanding the complexity of different wheel applications, LANXESS has developed other LF MDI polycaprolactone systems based on different curative combination allowing to reach hardness from 88 to 96 Shore A. Through many years of technical experience related to PU formulations specific to wheel applications, LANXESS has developed a predictive wheel model tool, that will predict with good accuracy the wheel performance within the final application. Therefore LANXESS can support its customers in evaluating Adiprene LFM C525 in different wheel designs and/or different load/speed conditions.

LANXESS is a leading specialty chemicals company with sales of EUR 7.2 billion in 2018. The company currently has about 15,400 employees in 33 countries and is represented at 60 production sites worldwide. The core business of LANXESS is the development, manufacturing and marketing of chemical intermediates, additives, specialty chemicals and plastics. 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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You can find further information concerning LANXESS chemistry in our WebMagazine at <http://webmagazine.lanxess.com>.

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### Image



LANXESS recently launched the new system Adiprene LFM C525 cured with Vibracure 2101 developed for the most challenging wheel applications. Photo: LANXESS AG

### LANXESS AG

Contact:

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Corporate Communications  
Spokesperson  
Trade & Technical Press  
50569 Cologne  
Germany

Phone +49 221 8885-5041  
[michael.fahrig@lanxess.com](mailto:michael.fahrig@lanxess.com)

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