

LANXESS launches bio-based prepolymer line Adiprene Green

- Replacement for fossil based polyether prepolymers
- Enables PU components with reduced CO₂ footprint
- Easy to handle and to process

Cologne – Specialty chemicals company LANXESS has developed a new range of MDI polyether prepolymers containing renewable, biobased raw materials. Marketed under the brand name Adiprene Green, the products are suitable as replacement for existing fossil based polyether prepolymers to manufacture highly durable polyurethane (PU) elastomers.

The overall objective to develop Adiprene Green was to create a range of bio-based prepolymers which allow the PU processor to produce components with a reduced CO_2 footprint. Depending on the system, a reduction of CO_2 between 20 to 30 percent is possible compared to fossil-based prepolymers due to the use of polyether polyols based on starch. The share of bio-based raw materials varies between 30 to 90 percent dependent on the targeted system hardness. At the same time the existing PU processing capabilities would remain applicable and the properties of the final polyurethane elastomer would be similar to established elastomers based on fossil based polyether or even better.

Dr. Markus Eckert, head of the LANXESS Urethane Systems business unit, says: "At LANXESS, we have a clear sustainability strategy. With the goal to be climate neutral until 2040, we are building on our established and successful commitment to climate protection. The first major projects have already been launched. By using our new Adiprene Green products, customers can benefit from our journey to climate neutrality."

LANXESS AG

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Adiprene Green prepolymers are easy to handle – they are processed in an identical manner to conventional prepolymers. No modifications to material handling, process temperatures or mixing ratios are necessary. In addition, the reactivity profile and demolding times are similar to fossil based polyether prepolymers.

When reacted with 1,4 butanediol, a range of PU elastomers with a hardness from 40 Shore A to 60 Shore D can be achieved. As the PU system is versatile, Adiprene Green can be hand-mixed or machine mixed. Moreover, the prepolymers can be processed with Vibracat catalysts from LANXESS. Products of the Adiprene Green line are well suited for demanding applications such as roll covers, wheels, press sleeves or non-pneumatic tires.

LANXESS is a leading specialty chemicals company with sales of EUR 6.8 billion in 2019. The company currently has about 14,300 employees in 33 countries. 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

This company release contains certain forward-looking statements, including assumptions, opinions, expectations and views of the company or cited from third party sources. Various known and unknown risks, uncertainties and other factors could cause the actual results, financial position, development or performance of LANXESS AG to differ materially from the estimations expressed or implied herein. LANXESS AG does not guarantee that the assumptions underlying such forward-looking statements are free from errors, nor does it accept any responsibility for the future accuracy of the opinions expressed in this presentation or the actual occurrence of the forecast developments. No representation or warranty (expressed or implied) is made as to, and no reliance should be placed on, any information, estimates, targets and opinions contained herein, and no liability whatsoever is accepted as to any errors, omissions or misstatements contained herein, and accordingly, no representative of LANXESS AG or any of its affiliated companies or any of such person's officers, directors or employees accepts any liability whatsoever arising directly or indirectly from the use of this document.

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Information for editors:

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

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Image

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LANXESS has developed a new range of MDI polyether prepolymers containing renewable raw materials. Marketed under the brand name Adiprene Green, the products are suitable as replacement for existing fossil based polyether prepolymers and allow the PU processor to produce components with a reduced CO₂ footprint. Photo: LANXESS AG