

Booth G10, Hall 1, PWTC Expo, Guangzhou

**LANXESS Greater China  
Contact:**

## **LANXESS showcases carbon neutral solutions at PU China 2023**

**Shanghai, August 2, 2023** - Specialty chemicals company LANXESS is showcasing from August 2-4 at PU China 2023 in Guangzhou a range of innovative products and solutions related to carbon neutrality.

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“While carbon neutrality has become a global topic, Chinese companies are constantly advancing carbon reduction actions, and technological innovation is the key in this process. By developing innovative polyurethane solutions, LANXESS is committed to supporting customers who increasingly seek sustainable solutions and helping improve sustainability of the entire value chain,” Zhenglei Zhang, Vice President Asia-Pacific of the LANXESS Urethane Systems (URE) business unit, said.

### **Bio-based products contribute to carbon reduction**

At the exhibition, LANXESS showcases the newly developed Adiprene Green MDI polyether-based polyurethane prepolymers, which are made of renewable bio-based raw materials and can help polyurethane processors reduce carbon emissions by 20-30 percent, depending on specific polyurethane systems. Compared with traditional petroleum-based polyether prepolymers, the bio-based raw materials for the Adiprene Green series can be used in proportions up to 30-90 percent, depending on different target hardness of polyurethane elastomers. At the same time, the existing polyurethane processing equipment will still apply, with processing method basically the same as that for traditional prepolymers, so there is no need to adjust the processing method, processing temperature or even mixing ratio of materials. For Adiprene Green prepolymers, it is possible to flexibly select casting processes of hand-mixing or machine-mixing based on the site conditions.

LANXESS' Adiprene Green uses starch-based polyether polyols as raw materials, making the overall performance of the polyurethane elastomers produced equal to or even higher than that of the existing mature petroleum-based polyether elastomers. Adiprene Green prepolymers can react with 1,4-butanediol to generate a series of high performance polyurethane elastomers with hardness ranging from 40 Shore A to 60 Shore D. They can also be used in combination with LANXESS' Vibracat catalyst. The Adiprene Green range is ideal for applications with high requirements for elastomer properties, such as rubber coating of rollers, industrial rollers, boot covers for paper machines and airless tires.

In addition, LANXESS displayed a hot-cast and cold-cure system for polyurethane cast elastomers. Through this new technology, new Vibrathane prepolymers can be cured at room temperature with the new Vibracure curing agent, thereby improving usability, energy saving and environmental health and safety. Depending on the polyurethane plant setup, the total energy consumption can be reduced by up to 40-50 percent with this system.

### **Focus on green energy applications**

While advancing its product portfolio towards climate neutrality, LANXESS also collaborated closely with downstream applications to build a sustainable innovative ecosystem. Last August, the company announced the target for its scope 3 emissions, aiming to make its upstream and downstream supply chains climate-neutral by 2050. To this end, LANXESS has launched the Net Zero Value Chain Program. Through sustainable raw materials, green logistics and climate-neutral products, the company is taking the next step together with its suppliers and customers.

Among them, the applications in the new energy industry are the focus of LANXESS' Urethane Systems business unit. Data show that more than 80 percent of global carbon emissions are from energy production and consumption. According to the statistics from the International Energy Agency (IEA), China's total carbon emissions in 2019 were 11.3 billion tons, of which 9.8 billion tons came from the

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energy sector, accounting for 87 percent of the country's total. Technological innovation is a must for the low-carbon transition of energy.

LANXESS' specialized polyurethane systems know-how, global production capabilities, deep application expertise and decades of technical experience all come together to enable it to provide important guarantees for the development of clean energy such as solar energy, wind energy, and nuclear energy. In order to meet the needs of offshore wind power generation, the cable protection tubes cast with LANXESS' polyurethane systems are endowed with obvious resistance to wear, tear, hydrolysis and corrosion, which greatly prolong the service life of cables and help to tackle challenges of safety and environmental protection in green energy applications. LANXESS polyurethane products are widely used in the photovoltaic industry, from silicon ingot cutting, squaring and slicing to subsequent wafer processing. With its excellent abrasion resistance, temperature resistance and chemical stability, it helps the photovoltaic industry to continue to develop.

The photovoltaic cutting rollers with consistent performance provided by LANXESS are extremely important components in photovoltaic power generation. They boost excellent wear and scratch resistance, toughness and high load performance, and can adapt to harsh environments. The coating sprayed with the Low Free (LF) polyurethane prepolymers provided by LANXESS possesses, among other things, high strength, high wear resistance, corrosion resistance, high bonding strength, and high temperature resistance. Also with certain radiation protection ability, it forms a solid shield for heavy water reactors, protecting them for over two decades.

### **Diversified and customized application scenarios**

LANXESS also exhibits a broad product portfolio. The wide range extends from LF monomer technology and innovative Adiprene Green brand prepolymers with a high bio-based content to novel hot-cast and cold-cure systems that can be processed with reduced

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## Press Release



energy input and water-borne coatings designed to meet the high demands of modern vehicle interiors.

The LANXESS Urethane Systems business unit is one of the world's leading suppliers of polyurethane systems for elastomers, coatings, adhesives and sealants. Its specialized polyurethanes systems know-how, global production capabilities, deep application expertise and decades of technical experience all come together to provide solutions tailored to meet customer needs in fields such as industry, mining, transportation, electronics, energy, tires, construction, paper, consumer goods and even healthcare.

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## Press Release

### About LANXESS

LANXESS is a leading specialty chemicals company with sales of EUR 8.1 billion in 2022. The company currently has about 13,200 employees in 33 countries. The core business of LANXESS is the development, manufacturing and marketing of chemical intermediates, additives and consumer protection products. LANXESS is listed in the leading sustainability indices Dow Jones Sustainability Index (DJSI World and Europe) and FTSE4Good.

### LANXESS China

On January 31, 2005, the company was initially listed on the Frankfurt Stock Exchange and LANXESS Chemical (China) Co., Ltd. officially started operations. LANXESS now has 13 subsidiaries, 5 R&D centers and 5 production sites in Greater China. LANXESS works closely with its local partners to develop market-oriented solutions that meet local market needs.

### 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 accept any liability whatsoever arising directly or indirectly from the use of this document.

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