

LANXESS is developing materials for the car of the future

### **“Green” mobility begins in the chemistry lab**

**Cologne** – Tailored chemical materials and the associated technologies are indispensable to implementing sustainable, resource and climate-friendly mobility around the world. Of that, Dr. Werner Breuers is certain. “Chemical materials are the key to making cars lighter and more efficient. That is why our company is working systematically to develop new high-tech thermoplastic systems for lightweight construction and high-performance rubber products for low-rolling-resistance and thus fuel-saving tires,” said Breuers, member of the LANXESS Board of Management in advance of the 65th International Motor Show (IAA) in Frankfurt, Germany.

#### **Unparalleled expertise in lightweight construction**

LANXESS has earned an outstanding reputation as a development partner for automotive lightweight construction. “The weight of a vehicle can be reduced immediately by 50 kilograms solely through the use of our production-proven, high-performance thermoplastics Durethan, Pocan and TEPEX in a wide variety of applications. The results are fuel savings of up to 4 percent and a reduction in CO<sub>2</sub> emissions of up to 0.5 kilograms per 100 kilometers,” Breuers added. One example of a LANXESS innovation in the field of lightweight construction is a new polyamide 6 Durethan for use as a fuel tank inliner for natural gas-powered vehicles. According to Breuers, “The plastic tanks with this inliner weigh only one-fourth as much as an all-steel tank, reducing vehicle weight by as much as 7 percent.”

#### **The future is composite lightweight construction**

TEPEX continuous fiber-reinforced thermoplastic composites from Bond-Laminates, a company of the LANXESS group, have a bright future in lightweight construction. “LANXESS is one of the few thermoplastics manufacturers in the world that can supply production-proven compounds and performance composites with the associated applications know-how for the volume production of lightweight

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components,” said Breuers. In many cases, TEPEX is a high-performance and cost-effective alternative to carbon fiber-reinforced thermoset lightweight materials. Used in place of sheet metal, it significantly improves the lightweight construction potential of plastic-metal hybrid technology – by roughly 10 percent compared with hybrid technology using aluminum. Potential applications where TEPEX hybrid technology can be implemented directly in volume production include front ends, vehicle seats, seat cross-members, pedals and airbag housings.

### **High-tech rubber products for low-rolling-resistance tires**

Another example of LANXESS’ expertise when it comes to “green” mobility are high-performance rubber grades for low-rolling-resistance tires. “Our rubber products reduce the tires’ rolling resistance, which in turn reduces fuel consumption by 5 to 7 percent and thus also reduces CO<sub>2</sub> emissions. These green tires already make possible significant contributions to climate protection with existing vehicles,” Breuers said. LANXESS has presented a concept tire developed internally on the basis of the company’s rubber products and additives that was the first of its kind anywhere in the world to receive an AA rating according to the EU’s compulsory tire labeling system.

LANXESS is a leading specialty chemicals company with sales of EUR 9.1 billion in 2012 and roughly 17,500 employees in 31 countries. The company is currently represented at 52 production sites worldwide. The core business of LANXESS is the development, manufacturing and marketing of plastics, rubber, intermediates and specialty chemicals. LANXESS is a member of the leading sustainability indices Dow Jones Sustainability Index (DJSI) World and FTSE4Good as well as the Carbon Disclosure Leadership Index (CDLI).

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### **Forward-Looking Statements.**

This news release may contain forward-looking statements based on current assumptions and forecasts made by LANXESS AG management. Various known and unknown risks, uncertainties and other factors could lead to material differences between

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

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