News Release

Safe protection against oxidation

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- **Rubber chemicals from LANXESS extend the service lives of tires and technical rubber goods**
- **Ozone protection without staining or color transfer**
- **Antioxidants: additional quantities from Brunsbuettel and Jhagadia available for global market**

Cologne – Sunlight and oxygen are vital for humans, but harmful to rubber, therefore LANXESS offers an extensive range of antioxidants and antiozonants to prevent various types of aging in synthetic and natural rubber products. These products can be combined with one another to improve the distinct effective range of each particular compound. LANXESS, the specialty chemical company will be presenting these high-performance rubber chemicals for the rubber processing industry at K 2019, the leading international trade show taking place in Düsseldorf from October 16 to 23. The Advanced Industrial Intermediates business unit (AII), offers most of these products as granules, which can be dosed easily and safely with very little dust.

The antiozonant Vulkazon AFS, used in the production of latex, natural and synthetic rubbers, will be the focus at K 2019. It effectively prevents ozone cracking and does not lead to staining. This makes the granules ideal for use in chloroprene-rubber-based products such as automotive components and aquatic wear as well as in the production of protective clothing with highly resistant, impermeable barrier layers.

Ozone protection without staining or color transfer

Ozone is one of the most powerful oxidants, attacking most organic compounds, including elastomer materials. The service life and product quality of these materials can be easily influenced by relatively low exposure to ozone. UV radiation from the sun, electrical

discharge from machinery or industry as well as nitrogen oxide in polluted air all contribute to the formation of ozone.

The most significant and widely used antiozonant worldwide is substituted paraphenylenediamine (PPD). However, this substance can stain vulcanized rubber, so it is only used for black rubber products and not white or colored ones. Vulkazon AFS from LANXESS is an effective, non-staining alternative for applications in which color and design play a major role. “Our additive makes a significant contribution to the development of colored rubber products, as it does not affect the desired color shade and gives designers of technical rubber goods free rein for color design,” explains Melanie Wiedemeier-Jarad, Technical Service Manager in the Antioxidants & Accelerators (AXX) business line at AII.

The right additives for all stages of rubber production

The degradation processes, most of which are triggered by the effects of oxygen, ozone and heat, alter the properties of vulcanized rubber and can result in their partial or complete disintegration over time. “We will be presenting our comprehensive range of high-performance rubber chemicals at the plastics trade show,” says Dr. Jens-Hendrik Fischer, head of the AXX business line. “These include the Vulkanox antioxidants, Vulkazon antiozonants and Vulkacit vulcanization accelerators. LANXESS is one of the few manufacturers to offer the right additive for all stages of rubber production from a single source.”

Growing together

LANXESS markets the antioxidant TMQ (2,2,4-Trimethyl-1,2-dihydroquinoline) under the trade name Vulkanox HS for the production of tires and heavy-duty technical rubber goods. To manufacture this important rubber chemical, LANXESS has expanded the capacities of its world-class facilities at its sites in Brunsbuettel, Germany, and Jhagadia, India, to support the growth of

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its customers. “Optimization measures at both plants have now made additional quantities available for the global market,” says Fischer.

Detailed information on the company’s antidegradants can be found at axx.lanxess.com.

LANXESS is a leading specialty chemicals company with sales of EUR 7.2 billion in 2018. The company currently has about 15,500 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.

Cologne, July 2, 2019
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You can find further information concerning LANXESS chemistry in our WebMagazine at http://webmagazine.lanxess.com.

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Images

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LANXESS produces Vulkanox, a proven antioxidant for tires and other rubber products. Photo: LANXESS AG

At K 2019 in Düsseldorf, Germany, LANXESS will present solutions for the manufacture of rubber articles and tires. These include release agents, tire marking paints, bladders, accelerators, mastication agents and antioxidants as well as aramid fiber masterbatches. Photo: LANXESS AG