

LANXESS at K 2016, Düsseldorf, October 19 to 26,
Hall 6, Stand C76

Protection against aging

- **Antioxidants and antiozonants from LANXESS make rubber articles last longer**
- **The perfect additive for all steps in the rubber manufacturing process from a single source**

Cologne – Rubber is everywhere. This sealing, damping, cushioning and insulating material is highly versatile but requires protection against aging that is tailored to the specific stresses encountered. With this in mind, the Advanced Industrial Intermediates (All) business unit of specialty chemicals company LANXESS will showcase a raft of staining and non-staining antioxidants and antiozonants for the rubber industry at K 2016 – the leading international trade show that is taking place in Düsseldorf from October 19 to 26. Depending on their chemical structure, antioxidants and antiozonants counteract one or more aging processes.

Each antioxidant/antiozonant has a typical efficacy spectrum with regard to the various types of aging. As Dr. Jens-Hendrik Fischer, head of All's Antioxidants and Accelerators (AXX) unit, remarks: "We provide global support for the rubber processing industry with a wide-ranging selection of products and proven technical expertise. With decades of experience, we have the necessary know-how to recommend appropriate rubber chemicals for our customers' processing operations."

Thanks to its Vulkanox, Vulkacit, Vulkazon and Renacit brands, LANXESS is one of the few manufacturers to offer the perfect additive for every step in the rubber manufacturing process from a single source.

LANXESS AG
Corporate Communications
50569 Cologne
Germany

Frank Grodzki
Head of General Press and
Trade & Technical Press
Phone +49 221 8885-4043
frank.grodzki@lanxess.com

Ilona Kawan
Corporate Communications /
Trade & Technical Press
Phone: +49 21 8885-1684
ilona.kawan@lanxess.com

Page 1 of 4

Vital to humans – harmful to rubber

Aging processes, which are primarily triggered by the effects of oxygen, ozone and heat, change the properties of vulcanizates and can lead to their partial or total destruction over time. The resistance of rubber items to oxygen, ozone and other reactive substances mainly depends on the elastomer on which the compound is based and on the chemicals added to retard the destructive process. NR (natural rubber), which is used to make items such as truck tires, absorbs far more oxygen than SBR (styrene-butadiene rubber), NBR (nitrile-butadiene rubber) or IIR (butyl rubber) over the same period. Unsaturated groups (such as carbon-carbon double bond content) in the rubber molecule react with oxygen and ozone. This can result in hardening, embrittlement, crazing effects and fatigue. The rubber article is ultimately destroyed.

As Melanie Wiedemeier-Jarad, Technical Service Manager in the AXX unit, explains: “We’ll be exhibiting 14 high-performance rubber chemicals for the rubber processing industry at the trade show. For the most part, LANXESS offers these products in the form of granules for easy, safe and low-dust metering and incorporation. The most important thing, though, is that they can be combined to further enhance a particular additive’s specific efficacy spectrum.”

LANXESS’s Vulkanox antioxidants and Vulkazon antiozonants significantly extend the lifespan of elastomers. As a result, items such as truck tires, technical rubber goods and fire hoses can remain in use and retain the required properties for longer.

All has developed a highly effective peptizing agent in the form of wax granules called Renacit 11/WG that makes natural rubber easier to process by breaking down the molecular chains.

In addition to antidegradants, the Advanced Industrial Intermediates business unit will also be using K 2016 in Düsseldorf to showcase its Vulkacit vulcanization accelerators, which help to optimally regulate

LANXESS AG

Corporate Communications
50569 Cologne
Germany

Frank Grodzki
Head of General Press and
Trade & Technical Press
Phone +49 221 8885-4043
frank.grodzki@lanxess.com

Ilona Kawan
Corporate Communications /
Trade & Technical Press
Phone: +49 21 8885-1684
ilona.kawan@lanxess.com

Page 2 of 4

the manufacture of rubber products. By interfering in the reaction between sulfur and the elastomer molecules that forms the basis of vulcanization, Vulkacit has a positive influence both on the speed of the crosslinking reaction and on the properties of the vulcanized products, which then combine outstanding tensile strength, elasticity, elongation at break and hardness with a longer service life.

Full details of the product portfolio can be found online at <http://axx.lanxess.com>, where the brochure entitled “ANTIOXIDANTS AND ACCELERATORS (AXX) PORTFOLIO 2016-06” is also available to download.

A reliable partner for far more than tires and technical rubber goods

The All business unit is one of the world’s leading manufacturers of high-quality industrial chemicals for producing agrochemicals, polymers and surface coatings. Further important applications include cosmetics, flavorings, fragrances, fuel additives, lubricants and construction chemicals.

This LANXESS business unit is part of the Advanced Intermediates segment, which generated sales of EUR 1,826 million in fiscal 2015.

LANXESS is a leading specialty chemicals company with sales of EUR 7.9 billion in 2015 and about 16,700 employees in 29 countries. The company is currently represented at 55 production sites worldwide. The core business of LANXESS is the development, manufacturing and marketing of chemical intermediates, specialty chemicals and plastics. Through ARLANXEO, the joint venture with Saudi Aramco, LANXESS is also a leading supplier of synthetic rubber. LANXESS is listed in the leading sustainability indices Dow Jones Sustainability Index (DJSI World) and FTSE4Good.

Cologne, October 19, 2016
kaw (2016-00086e)

LANXESS AG

Corporate Communications
50569 Cologne
Germany

Frank Grodzki
Head of General Press and
Trade & Technical Press
Phone +49 221 8885-4043
frank.grodzki@lanxess.com

Ilona Kawan
Corporate Communications /
Trade & Technical Press
Phone: +49 21 8885-1684
ilona.kawan@lanxess.com

Page 3 of 4

News Release

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 the actual future results, financial situation, development or performance of the company and the estimates given here. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

Information for editors:

All LANXESS news releases and their accompanying photos can be found at <http://press.lanxess.com>. Recent photos of the Board of Management and other LANXESS image material are available at <http://photos.lanxess.com>. TV footage can be found at <http://globe360.net/broadcast.lanxess/>.

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

Follow us on Twitter, Facebook, LinkedIn and YouTube:

<http://www.twitter.com/LANXESS>

<http://www.facebook.com/LANXESS>

<http://www.linkedin.com/company/lanxess>

<http://www.youtube.com/lanxess>

LANXESS AG

Corporate Communications
50569 Cologne
Germany

Frank Grodzki
Head of General Press and
Trade & Technical Press
Phone +49 221 8885-4043
frank.grodzki@lanxess.com

Ilona Kawan
Corporate Communications /
Trade & Technical Press
Phone: +49 21 8885-1684
ilona.kawan@lanxess.com

Page 4 of 4