Continental Presents Advances in Measurement Methods and Sustainability



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Latest developments in tire technologies, scientific advances in measurement methods and their impact on Continental's sustainability agenda are the focus of the three-day technical conference

- Four presentations by experts from Continental Tires

Continental is pursuing eager sustainability ambitions. But in the rapidly evolving tire industry, we also know that certain overarching issues can only be solved collectively,

says Prof. Burkhard Wies, Head of Applied Research and Innovation department at Continental Tires

Hanover, Germany, February 13, 2025. Continental will be represented with four technical presentations at this year's Tire Technology Expo conference to be held from March 4 to 6 in Hanover. Jorge Almeida, Head of Sustainability at Continental Tires, and Prof. Burkhard Wies, Head of Applied Research and Innovation at Continental Tires, will open the conference with a presentation on the company's sustainability strategy on March 4, 2025. The focus of the presentation is on reducing the environmental footprint of tires during their use phase. Continental will also hold two further expert presentations on the opening day and one the day after. These include an analysis of tire wear particles under real conditions, the presentation of an innovative testing device for measuring energy losses in rubber samples and the introduction of a more environmentally friendly adhesion technology for textile reinforcement materials known as COKOON.

Continental is pursuing eager sustainability ambitions. But in the rapidly evolving tire industry, we also know that certain overarching issues can only be solved collectively. Crossdivisional research projects, exchanges of expertise and the pooling of know-how form the foundation for this. The Tire Technology Expo conference is therefore extremely important to us,

Evaluation of tire wear particles under real conditions

The emissions that occur during the use phase of a tire due to driving include both tire and road wear particles. Reliable, standardized and particularly accurate measurement methods are needed for their comprehensive research. Such methods are essential for a better understanding of the environmental impact of wear particles and, based on this, for developing new solutions to further reduce them. To this end, Continental has jointly conducted a study with the Technical University of Braunschweig, Germany. The aim of this project titled

Online Analysis of Airborne Tire Wear Particles During their Formation and Differentiation from Particles of Other Origins

(OLRAP in German) was to develop a method that can quantify tire wear particles under a variety of conditions – including driving style – during their formation. Dr. Benjamin Oelze, Group Leader Test Method Development Tire Wear at Continental Tires, will center his presentation around the results of this research project, which was funded by the German Ministry of Science and Culture.

Presentation of an innovative testing device for measuring energy losses in rubber samples

Rebound resilience provides information about hysteresis losses in rubber samples. This property is important for the tire industry because it corresponds to the energy loss that occurs during contact between the tire and the road – an important factor in measuring and reducing rolling resistance. Materials with high rebound resilience lose less energy in the form of heat, which contributes to improved fuel efficiency and lower carbon emissions. In his presentation, Prof. Jorge Lacayo-Pineda, the Continental expert for the evaluation of new materials, will introduce an innovative rebound testing device that is able to display a dynamic mechanical analysis of the hysteresis curve within milliseconds.

More environmentally friendly adhesion technology: COKOON

Dr. Cornelia Schmaunz-Hirsch, responsible for the development of new adhesion and reinforcement technologies at Continental Tires, jointly with Dr. Yasin Sen, expert for the development of adhesion systems at Kordsa, a global supplier of textile reinforcing materials, will give a presentation on the development of the more environmentally friendly COKOON bonding system. This technology enables the bonding of textile reinforcing materials with rubber compounds without the use of resorcinol or formaldehyde in the textile dip bath. It is a key application in the rubber industry because textile reinforcing materials are widely used in tire production as well as in the manufacture of technical rubber products such as hoses and conveyor belts. Continental and Kordsa have made COKOON available to all tire manufacturers and their suppliers as a license cost-free, open-source solution. Interested companies can request samples.

The projects and technologies presented by Continental at the Tire Technology Expo contribute to the reduction of driving-related tire emissions, while also advancing knowledge relating to more sustainable processes and jointly solving individual, overarching issues. The ambitions of Continental Tires are diverse: the company aims to significantly reduce its emissions and further advance the development of concrete solutions through scientifically validated means. This includes the ambition to achieve carbon-neutral production at all of its tire plants worldwide by 2040.

Simultaneously with the Tire Technology Expo, a three-day specialist conference will be held with international experts from the tire industry. This year, the organizers will be focusing on tire design and manufacturing processes. Further information on the Tire Technology Expo and the conference program can be found here: Tire Technology Expo 2025.

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