

New cooperation enables Evonik to provide tire industry with silica made from biobased raw materials

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- CO₂ footprint reduction of 30% supports tire industry customers achieve sustainability ambitions
- Collaboration is first step towards biobased silica and meeting growing demand for renewable raw materials
- New plant commissioning expected in 2024

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Bangkok, Thailand. Evonik, one of the world's leading silica producers, has entered a strategic cooperation with the Pörner Group, Austria and Phichit Bio Power Co., Ltd., Thailand, to supply sustainably precipitated ULTRASIL® silica to tire manufacturers. It is made from sodium silicate derived from rice husk ash (RHA), that is produced exclusively with biomass energy sources. In this way, the global tire industry is supported in its quest for carbon neutrality.

Silica is the key-ingredient for fuel-efficient tires, reducing the fuel consumption by up to eight percent compared to conventional passenger car tires. With the sustainable ULTRASIL® silica a next step will be taken to reduce the carbon footprint of the silica significantly. The silicate, which is the essential raw material to produce the tire silica will be biobased and made with green energy. The demand for sustainable raw materials in tires is increasing significantly. However, until now only very small quantities of biobased silica are available in the market, which do not meet the rising global demand.

The new collaboration addresses this shortage and the industry's ambition to increase its use of renewable raw materials. Pörner Group's pioneering process to generate the silicate from RHA uses biomass energy that enables Evonik to deliver a CO₂ footprint reduction of up to 30% compared to its standard silica. Phichit Bio Power Co., Ltd. with its existing rice mills and biomass power plants, licenses Pörner Group's technology and will invest in a new RHA sodium silicate plant in Thailand. This operation will allow a reliable supply of biobased water glass for Evonik. This is required

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to meet the global tire industry's demand for more sustainably produced silica.

"This cooperation is a strategically important first step in the further development of our product portfolio. For the first time, we can offer our customers an ULTRASIL® silica with an improved sustainability profile, thus we can support our customers' carbon reduction and circularity goals," said Emmanuel Auer, Head of Silica business line. "Further measures at other sites in our global production network are also planned to expand our renewables offering to meet global demand more sustainably."

"At our demonstration plant in Germany we have verified the superior quality of the bio-silicates over several years of research and development in a pre-qualification process with Evonik," said Gerhard Bacher, CEO of Pörner Germany. "Our patented process is based on the ash of biomass power plants fired with rice husks, where the Pörner Bio-Silicate Technology intelligently uses the natural filtering ability of the rice plant to produce high-quality sodium silicates for many applications – above all to produce the silica used in the tire industry. Now, through this cooperation, it is possible to produce Bio-Silicates on an industrial scale and significantly reduce the CO₂ footprint compared to the conventional processes. We are starting to decarbonize the silicate processing industry worldwide."

"The environmental benefits of producing silicate from rice husk ash are clear, but equally as important are the benefits the cooperation brings for our stakeholders in the region. For example, through the creation of new jobs for local communities around the plant, or for farmers who will be able to connect to our electricity generation network," said Banjong Tangjitwattanakul, President of Phichit Bio Power Co., Ltd. "We are proud to play our part in realizing this vision to supply the quantities of silicates from rice husk ash that will support the global silica production market to reduce its carbon footprint and help the planet."

Company information

Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and generated sales of €15 billion and an operating profit (adjusted EBITDA) of €2.38 billion in 2021. Evonik goes far beyond chemistry to create innovative, profitable and sustainable solutions for customers. About 33,000 employees work together for a common purpose: We want to improve life today and tomorrow.

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