

Nokian Tyres announces development project partnership to improve the quality and yield of recycled carbon black – Aiming for even more sustainable tires

Nokian Tyres has signed a research agreement for an international project aiming to improve the quality and yield of recycled carbon black from end-of-life tires. This will enable the use of higher amounts of recycled carbon black in rubber compounds, benefiting tire and rubber product manufacturers in creating more sustainable products.

Carbon black is used as a reinforcing filler in tires to enhance their physical properties such as strength and resilience. Recycled carbon black can be used to partly replace the fossil-based virgin carbon blacks.

The target of the research project is to improve the properties of recycled carbon black so that it could be used more extensively. Nokian Tyres' role in the project is to define the target properties for the improved recycled carbon black and test the materials produced.

"Nokian Tyres has worked on more sustainable tires for years, and as a company, we want to increase our understanding about recycled carbon black. Getting production scale volumes of improved recycled carbon black would enable testing it in tires and comparing it to both virgin carbon black and regular recycled carbon black," says **Heini Siekkinen**, Senior Manager, Research and Sustainability at Nokian Tyres.

Nokian Tyres included recycled carbon black in a commercial product line in 2022. It was a step forward in reaching one of the company's sustainability targets, which is to increase the share of recycled and renewable raw materials in tires to 50% by 2030.

When introducing new raw materials in tires, one of the most demanding tasks is to find the right balance between raw material selection and tire properties.

"The use of new raw materials requires a great deal of product development efforts and testing to find the best combination, as new raw materials can modify the compound properties. The use of recycled or renewable materials must not impair a tire's safety characteristics", says Siekkinen.

The two-year development project is coordinated by Windspace A/S and co-financed by the Danish Eco-Innovation Program and the participants that in addition to Nokian Tyres include Environmental Waste International, Kiso A/S and Danish Technological Institute.

"More extensive use of recycled carbon black in manufacturing tires and other rubber products is also in line with the EU's sustainable development goals, according to which the material recovery of used tires is to be increased and incineration reduced," concludes Siekkinen.

Further information:

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