

**Nokian Tyres and UPM partner to introduce the first concept tire made with a new renewable material with the potential to replace carbon black in tires**



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Nokian Tyres, a leading developer and manufacturer of premium tires, and UPM, a leading biomaterials production expert, are partnering to further increase sustainability in the tire industry by introducing the first concept tire made with a new renewable material with the potential to replace a significant part of the carbon black currently used in tire production.

The innovative material, called UPM BioMotion™ RFF is a promising fully renewable lignin-based alternative for traditional carbon black, reducing the need for fossil materials and lowering carbon emissions in tire manufacturing.

Nokian Tyres has long been innovating to use the material and has registered a patent for using the material in tire applications. Nokian Tyres is now licensing its patent to UPM, which enables UPM to provide the raw material to the tire industry. UPM will produce the material at its soon to be ready biochemicals biorefinery in Leuna, Germany.

“Our partnership with Nokian Tyres marks the exciting entry of our Renewable Functional Fillers into the global tire markets. In successfully demonstrating their

application value, it helps us to lay the groundwork for scaling our biorefinery business so that we can make a significant contribution to the sustainable transformation of the mobility sector and beyond,” says Michael Duetsch, Vice President Biochemicals at UPM.

### **Nokian Tyres Green Step Ligna - the first ever concept tire made with the fully renewable lignin raw material UPM BioMotion™ RFF**

Nokian Tyres Green Step Ligna concept tire is the first ever tire made with UPM BioMotion™ RFF, a fully renewable wood-based lignin raw material produced by UPM. In the concept tire all fossil carbon black in the tire’s sidewalls is replaced by the new raw material.

“With the concept tire we demonstrate the usability of the groundbreaking new raw material in tires. Our concept tire marks a leap towards the use of renewable materials not only for us, but the whole tire industry. By prototyping this renewable material in our tires, we aim to set new standards for environmental responsibility,” says Teemu Soini, VP, Innovations & Development at Nokian Tyres.

*The first Nokian Tyres concept tire containing UPM BioMotion™ RFF will be exhibited at the German rubber industry conference DKT 2024 in Nürnberg, Germany, from July 1–4 at the UPM booth 527 in Hall 9.*

### **Features superior to carbon black**

“We are constantly working on innovations that advance us towards our target of increasing the share of recycled or renewable raw materials in tires to 50 percent by 2030. Since 2022 a portion of the carbon black used by Nokian Tyres has been from recycled materials. We see lignin as a promising renewable alternative to traditional carbon black, and in the future, we hope to see that lignin based renewable filler materials would find their way to tires as well complementing an increasing share of recycled content,” explains Teemu Soini.

Currently carbon black is used as a reinforcing filler in tires enhancing properties such as strength and resilience. According to initial lab tests UPM BioMotion™ RFF has features superior to traditional carbon black. Replacing a significant part of the carbon black currently used in tires with the new renewable filler material offers great potential for more sustainable tires as fillers represent approximately 30 percent of a tire’s raw materials.

UPM will first supply UPM BioMotion RFF to Nokian Tyres for prototyping. This includes rigorous testing to use the new material in production. Nokian Tyres is carefully evaluating the material's performance, safety, and environmental impact compared to traditional carbon black.

**Further information:**

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**UPM Biochemicals**

UPM Biochemicals offers innovative, sustainable and competitive wood-based biochemicals for replacing fossil-based raw materials and helping to improve the environmental performance in various applications. End-use segments for renewable glycols include textiles, PET bottles, packaging, coolants, composites, pharmaceuticals, cosmetics and detergents. Lignin-based Renewable Functional Fillers (RFF) offer a sustainable alternative to carbon black and precipitated silica in a broad range of rubber and plastic applications. UPM is building an industrial scale biorefinery in Leuna, Germany to convert solid wood into next generation biochemicals. UPM Biochemicals is accelerating the transition to a circular bioeconomy – where renewable feedstocks, sustainable production and sustainable consumption are the new normal. [www.upmbiochemicals.com](http://www.upmbiochemicals.com)

**UPM**

We deliver renewable and responsible solutions and innovate for a future beyond fossils across six business areas: UPM Fibres, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. As the industry leader in responsibility, we are committed to the UN Business Ambition for 1.5°C and the science-based targets to mitigate climate change. We employ 16,600 people worldwide and our annual sales are approximately EUR 10.5 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. [www.upm.com](http://www.upm.com)

**Nokian Tyres**

Nokian Tyres develops and manufactures premium tires for people who value safety, sustainability and predictability. Inspired by our Scandinavian heritage, we craft innovative products for passenger cars, trucks and heavy machinery that give you peace of mind in all driving conditions. Our Vianor chain provides tire and car services. In 2023, our net sales totaled EUR 1,174 million. At the end of 2023 we employed over 3,400 professionals. Nokian Tyres is listed on Nasdaq Helsinki. Further information: [www.nokiantyres.com](http://www.nokiantyres.com)