Circular Economy: Racing Tires Become Forklift Tires

PUBLISHED DEC 10, 2023
BY CONTINENTAL AG

Continental recycles Extreme E tires from the 2022 season

- Recovered carbon black (rCB) is used for production of Super Elastic solid tires

- By 2050 at the latest, Continental aims to use 100 percent sustainable materials in its tire products

Hanover, Germany, December 11, 2023. Continental uses carbon black from recycled racing tires in its production of solid tires. To this end, a total of 300 CrossContact Extreme E racing tires were processed using a special pyrolysis process. With this initiative, the premium tire manufacturer is integrating sustainable circular economy solutions into its tire production. By recovering carbon black, virgin raw materials can be saved and CO2 emissions reduced. Since September 2023, Continental has been producing solid tires - whose main application is in forklifts - with recycled carbon black at its plant in Korbach (Germany). Both recycled car and truck tires are used to produce these tires.

> By recycling our Extreme E racing tires we are raising awareness of the significant potential of tire pyrolysis. We are in no doubt that cutting-edge and highly efficient pyrolysis processes will make an important contribution to increasing sustainability in the tire industry," says Matthias Haufe, Head of Material Development and Industrialization at Continental Tires. "We already use circular raw materials in our tire production. By 2050 at the latest, we are aiming to have 60 percent tire to tire circularity. Our goal is to use fossil raw materials ever more sparingly and at the same time further reduce our CO2 emissions.

Together with its partner Pyrum Innovations, Continental is currently developing processes to further optimize and expand the recycling of end-of-life tires through pyrolysis. For instance, recovered industrial

carbon black is to be used in an increasing number of Continental rubber compounds going forward. Pyrum processes end-of-life tires into their individual components using its patented pyrolysis technology. This allows valuable raw materials from end-of-life tires to be extracted and recycled. The main examples here are oil, gas and industrial carbon black. The recovered oil can be used for various purposes, including to manufacture chemicals. Crude oil would otherwise be used here. Recovered gas serves, among other things, as an energy source for the pyrolysis process.

Industrial carbon black is an important resource used as a filler in tire production and in the manufacture of other industrial rubber products. The targeted use of carbon black in rubber compounds increases the stability, strength and durability of tires. Together with Pyrum Innovations, Continental is currently developing processes that will continue to improve and expand the recycling of end-of-life tires through pyrolysis. For instance, recovered industrial carbon black is to be used in an increasing number of rubber compounds.

Fully electric race series Extreme E shines the spotlight on sustainability

Continental is the exclusive tire partner of the all-electric race series Extreme E, its CrossContact Extreme E racing tires seeing action in the five X-Prix of the 2022 season in Saudi Arabia, Italy, Chile and Uruguay. In the development of the second-generation Extreme E racing tires, the company ensured an even higher proportion of sustainable materials were used. Indeed, the tires were made up of around 43 percent recycled and renewable raw materials. These include silica from the ash of rice husks and the innovative ContiRe.Tex technology. Continental uses this technology to generate high-performance polyester fibers that reinforce the tire casing. It does so by recycling PET bottles, which would otherwise frequently end up in incinerators or landfills.

> As well as using sustainable materials, it was also important to us to recycle our racing tires. As part of a closed-loop system, these will now become the starting material for new tires,

says Nels von Schnakenburg, Technical Manager for Extreme E at Continental.

Continental had already recycled the tires used for the 2021 season in

Extreme E under the banner

Turning racing tires into living space

. The tires were used to produce 400 square meters of rubber paving stones. Continental then donated the paving stones to be part of a new basketball court in Hanover that provides local children with a lively place to play, burn off energy and train. Continental has gone a step further with the recycling of the tires from the 2022 season of the sustainable electric race series by channeling the recycled materials back into tires.

Circular economy is an integral element of Continental's sustainability strategy

The use of recovered carbon black from end-of-life-tires is an important step towards more circular business practices in Continental's tire production. The company is working tirelessly to advance innovative technologies and sustainable products and services throughout its entire value chain, from sourcing sustainable materials to recycling end-of-life tires. Continental is aiming to achieve 100 percent carbon neutrality throughout its value chain by 2050 at the latest.

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Press release distributed by Wire Association on behalf of Continental AG, on Dec 10, 2023. For more information subscribe and follow us.

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