Levidian Unveils Graphene-enhanced Prototype Truck Tire

2024-03-24

Levidian has unveiled its first prototype truck tire, combining graphene with carbon black in a new tread formulation. Launched this week at the Tire Technology Expo in Hannover, the graphene-enhanced natural rubber and butadiene rubber tire tread compound, typically used in commercial vehicle tires, has been shown to deliver significant improvements in the mechanical and dynamic properties of the tire.

Independent testing by the Tun Abdul Razak Research Centre (TARRC) has reportedly shown that the addition of Levidian's 'net zero graphene' can deliver a reduction in rolling resistance of around 23%. Initial results have also indicated potential for reduced compound density that could allow for lighter tires overall. It was said that overall, this could deliver substantial improvements in fuel efficiency of 3-4%.

Levidian's graphene is produced as part of a unique decarbonization solution called LOOP that allows tire producers to drive down the emissions of their manufacturing processes and products through the production of clean hydrogen and high-quality graphene, which can be used as a reinforcing, tread grade carbon filler.

Ellie Galanis, Director of Commercial Development for Levidian said: "We're on a mission to help industry to decarbonize and are excited to be sharing this prototype tire alongside the results of testing with our partners at TARRC.... By deploying our technology, HGV operators could achieve improvements in fuel economy of at least 3% - that's an annual saving of over £300m on fuel and a reduction in emissions of almost half a million tonnes of CO2 equivalent for UK operators alone."

Levidian's solution offers tire manufacturers the opportunity to not only drive down the emissions associated with production but secure their supply chains by producing their own graphene on site for direct application into their tires.

Read the [original article](#) on Graphene-Info.