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## Goodyear to Introduce Its Graphene-enhanced Bicycle Tires to Market

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Goodyear, an American multinational tire and rubber manufacturing company, is to launch two brand-new bicycle tires designed based on graphene technology, weighing just 180 g for a 23 mm mannequin; one is an ultra-high-performance tire for highway cycling, and the lighter one is for highway racing and triathlon where speed is the key.

[Goodyear's](#) return to making bicycle tyres, after a 44-year hiatus, has been so successful that the company has launched two brand new tyres, Eagle F1 and Eagle F1 Supersport utilising [graphene](#) technology and weighing just 180g for a 23mm model.

The company's previous range-topper was the Eagle All-Season Tubeless road tyre which we found to be a very competent all-rounder with good grip and durability for year-round riding. The new Eagle F1 aims to be more ambitious and really tap into the company's racing heritage, and has the likes of the Continental GP5000, Schwalbe Pro One and Vittoria Corsa Speed in its sights.

The new Eagle F1 is an "ultra-high-performance all-round road tyre" and the Eagle F1 Supersport, which is even lighter, is aimed at the upper echelons of competition and will be suited to road racing, time trial and triathlon where speed trumps all other requirements.

The Eagle F1 boasts numerous technologies aimed at providing this desired high-performance. It has a 120TPI casing with R:Shield Protection, an anti-puncture belt under the casing. Over the top is wrapped the company's own Dynamic:GSR rubber compound which is claimed to provide "improved grip, reducing rolling resistance and longer wear".



Graphene has long been touted as the future and so far only a handful of companies have

incorporated it into their products. In the tyre world, Vittoria has become well-known for adding the wonder material to its tyres for several years, and Goodyear has followed suit with its new rubber compound.

Goodyear has developed a proprietary compound enhanced with graphene and “next-generation amorphous (non-crystalline) spherical Silica” to create what it labels Dynamic:GSR. The result of all these fancy words is a rubber that is able to deliver the holy grail of low rolling resistance, improved grip in the dry and wet and long-term durability.

There are also directional tapered grooves and a smooth centre section which it claims to provide improved braking and cornering grip. The Supersport does away with these grooves to save weight.

The Eagle F1 comes in five width options from 23 to 32mm, while the Eagle F1 Supersport comes in three widths from 23 to 28mm.

Claimed weight for the Eagle F1 in 25mm width is 210g. The 28mm tyres we have here weigh 234g on our scales. If you want the lightest, a 23mm wide Eagle F1 Supersport comes in at just 180g.

The Eagle F1 Supersport has a construction designed to optimise the rolling resistance and reduce weight but at the expense of puncture prevention and durability. The anti-puncture belt is narrower and the tread thickness has been reduced, measures which bring a 25mm tyre weight down to a claimed 190g.

If you want some numbers, the new compound offers a 10.1% rolling efficiency improvement over its previous Eagle F1 tyre, +8 increase in grip in wet and dry conditions and 7.2% better wear rate.

To produce the new tyre, Goodyear has partnered with Rubber Kinetics as the official licensed partner of The Goodyear Tire & Rubber Company. "Established with the singular purpose of bringing the Goodyear bicycle tire project to life; independence allows Rubber Kinetics to be solely dedicated to establishing Goodyear as a leading brand within the global premium bicycle tire segment," the company says.

Currently the new Eagle F1 and F1 Supersport are only available as clincher tube-type tyres, but a tubeless tyre is in the pipeline for a launch later this year. We're pretty excited to see how that performs when it comes out as the road tubeless market is really hotting up right now, and another high-end offering shows how importantly tyre companies are taking tubeless.

The new tyres will cost from £45 and be in shops in February. We've got a pair on test now so watch out for a review in the near future.

Read the [original article](#) on road.cc.