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Tyres & Fuel Use

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Tyres & Fuel: Reduced Rolling Resistance

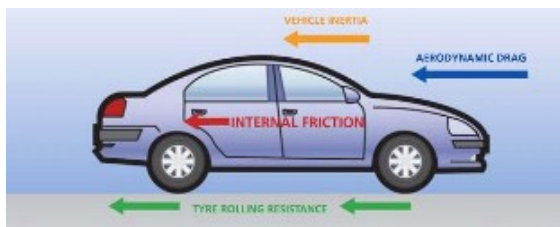
Did you know that your tyres have an enormous effect on the amount of fuel you use? In fact your tyres account for up to 20% of your entire fuel consumption.

It's all to do with Rolling Resistance. Rolling Resistance is the resistance that occurs due to energy lost as heat when a tyre rolls along a service.

We can't eliminate Rolling Resistance entirely, but we can reduce it. Tyres that are designed to reduce Rolling Resistance need less energy to move forward, so they'll use less fuel.

How MICHELIN Fuel Saving Tyres Reduce Rolling Resistance

MICHELIN Fuel Saving Tyres are made with a special rubber compound that contains a large component of silica. The silica acts as a dampener between the rubber particles and reduces friction.



The silica has useful side-effect too. It increases the flexibility of the tyre, which improves road holding. So you enjoy the dual benefits of fuel saving and better performance.

What is Rolling Resistance?

At every turn of the wheel the tyre tread area bends and deforms as it comes into contact with the ground and then moves away from it.

As the rubber deforms it gives out energy in the form of heat. This is the source of 90% of the tyre's 'rolling resistance'. The more rolling resistance a tyre has, the more power is required from the engine to move the car along. If the engine has to work harder just to overcome the tyre's rolling resistance, it will use more fuel.



The tyre rolling resistance force is equivalent to a car permanently climbing a 1% slope.

By the use of advanced tyre design techniques and the use of silica as a reinforcing agent in place of carbon black, the tyre's rolling resistance can be significantly reduced.

9.5 Billion Litres of Fuel Saved Since 1992

400 million Michelin low rolling resistance tyres - so called Green tyres - have been sold in Europe since 1992. These tyres have enabled an estimated fuel saving of 9.5 billion litres of fuel, as well as a staggering reduction in vehicle CO2 emissions of 23 million tonnes. CO2 is one of the main greenhouse gases, and each litre of fuel used emits about 2.5 kgs of CO2 into the atmosphere.



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