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Eco labels on tyres fail to paint complete picture

Research from Emissions Analytics, the leading provider of road-based emission testing, has found that the economy ratings on tyre labels don't reveal the full story on fuel efficiency. Preliminary tests have shown that, at certain speeds, tyres with a lower efficiency rating can perform as well as higher-rated tyres. This means consumers opting for tyres with a higher efficiency rating may fail to notice any fuel savings, depending on the nature and type of route they typically drive.

Demonstrating that the relationship between rolling resistance and fuel economy is not linear, Emissions Analytics' data highlights the issues of choosing tyres by efficiency rating. "Our test found that at mid-range speeds, F-rated tyres can perform as well as B-rated tyres." explains Nick Molden, Founder and CEO of Emission Analytics. "Tyre efficiency labels don't provide enough information for buyers to make an informed choice."

Evaluating contrasting sets of F and B rated tyres (175/70 R14) on the road, Emission Analytics' test route incorporated a range of steady-state speeds from 40mph to 70mph on Tarmac in consistent ambient temperatures. The tests employed the same test vehicle with the same driver.

Overall, the B rated tyre delivered superior performance in the 40-70 mph range, by an average of 3.8% mpg and 3.4% less CO_2. There proved little difference at mid-range speeds, but a performance gap became evident at 55mph, and by 70mph fuel economy has improved by a substantial 12.9%.

From a buyer's perspective, this means that opting for B-rated tyres is unlikely to produce a fuel saving if journeys are mainly confined to urban routes. In contrast, opting for the same tyres and covering a substantial amount of motorway miles could produce a noticeable improvement.

Introduced in November 2012, the EU's mandated tyre label includes a test-bench-measured, rolling-resistance coefficient expressed as a fuel efficiency rating. However, with no linear relationship between rolling resistance and real-world fuel economy, better testing and modelling would allow private and fleet buyers to make informed choices and select the tyres that will deliver a tangible fuel saving.

The highly accurate measurement of real-world vehicle emissions is possible through the use of Emission Analytics' SEMTECH-DS system, the benchmark for portable emissions measurement systems. Collecting data at a sampling rate of 1Hz, it provides a constant stream of test data that's detailed enough to evaluate the efficiency of tyres.
Market research shows that the current mandatory tyre labelling system is not proving effective. A report compiled by the National Tyre Distributors Association (NTDA) and LANXESS, the manufacturers of high-tech rubber for tyres, found that one year after their introduction 93% of tyre retailers stated customers never or only occasionally requested

information on the label. In addition only 30% knew that tyre choice could affect fuel consumption.

ENDS

Notes to Editors
Emissions Analytics provides on-road vehicle emissions measurement and analysis. Their bespoke services include benchmark tests, product evaluation and real-world running costs. They measure with precision all regulated pollutants, including CO, CO_2, NO, NO_2, total hydrocarbons and particulate matter.

Emissions Analytics' pioneering role as supplier to What Car's break-through True MPG scheme has seen it test over 400 models and makes of passenger cars, providing consumers with an easy and reliable way to assess real-world fuel economy.

As experts in vehicle emissions and fuel consumption, Emissions Analytics supports a range of commercial and publicly-funded organisations. It is currently in partnership with Imperial College, London, studying urban emissions for transport planning and policy.

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Graph Description: In testing the B-rated tyres proved superior in the 40-70 mph range, by an average of 3.8% mpg and 3.4% less CO_2. The biggest difference was at 70mph, as fuel economy improved by 12.9%.