

The MICHELIN X[®] Line[™] Energy[™] and MICHELIN X[®] MultiWay 3D[™] tires rate highest in comparative tests conducted by two independent organizations

In two separate tests, the independent certification organizations TÜV Sud Automotive and DEKRA confirm the performance of two MICHELIN Truck tires compared with premium-brand tires

Two independent certification organizations known for their methods and high-quality analyses held comparative tests of competing, premium-brand truck tires. The organizations were TÜV Sud Automotive, which compared the MICHELIN X[®] Line[™] Energy[™] against four competing tires, and DEKRA, which compared the MICHELIN X[®] MultiWay 3D[™] with three competitors.

By confirming that the two MICHELIN Truck tire lineups outperform competing premium-brand tires, the two organizations recognized the Michelin Group's commitment to meeting the highest quality standards.

DEUX PNEUMATIQUES DES GAMMES **MICHELIN X[®] LINE[™] ENERGY[™]** ET **MICHELIN X[®] MULTIWAY 3D[™]** REMPORTENT DEUX TESTS COMPARATIFS MENÉS PAR DEUX ORGANISMES INDÉPENDANTS



JUSQU'À **1,84 L/100 KM**
D'ÉCONOMIES DE CARBURANT
PAR CAMION, SOIT PLUS DE
1700 EUROS GAGNÉS PAR AN...



JUSQU'À **68,8 M** GAGNÉS AU FREINAGE!



The MICHELIN X[®] Line[™] Energy[™] recognized by TÜV Sud Automotive for its greater energy efficiency compared with other truck tires used on motorways

At Michelin's request and in real conditions of use¹, TÜV Sud Automotive organized a comparative energy efficiency test involving five latest-generation, premium truck tires². One of them was a tire from the new MICHELIN X[®] Line[™] Energy[™] range, which was launched in the replacement market in February 2013, four months after its introduction and exclusive use as original equipment on truck tractors manufactured by Renault Trucks and Volvo Trucks.

The tested demonstrated the superior energy performance of the MICHELIN X[®] LINE[™] Energy[™] tire compared with its competitors, with a **difference in fuel consumption of 1.2 liters per 100 km on average** and of **1.84 liters per 100 km** compared with the least energy-efficient competitor. For a tractor-trailer driven 130,000 km per year in long-haul use, this represents a **savings of up to more than €1,750 per vehicle per year**³.

Since 1992, the Group has been a pioneer in the development of low fuel consumption tires and the MICHELIN X[®] LINE[™] Energy[™] lineup is the fifth generation of these highly energy-efficient tires. Michelin is fully focused on constantly innovating to provide trucking companies with outstanding support for their business operations. This means in particular that MICHELIN tires always help to optimize total cost of ownership by delivering superior performance over the long run thanks to their long total mileage, optimized grip, retreadable casing and regroovable tread.

In a test conducted by DEKRA, the MICHELIN X[®] MultiWay 3D[™] had a shorter braking distance than three other multipurpose truck tires

At Michelin's request, DEKRA, the German certification organization, compared four different latest-generation, premium tires in a test that involved braking on a low-traction surface⁴. All of the tires in the test had already been two-thirds worn through planning.

The test showed that the MICHELIN X[®] MultiWay 3D[™] had a shorter braking distance than the three competing tires. **The difference was 44.9 meters on average** and **68.8 meters** compared with the tire that braked least effectively.

Michelin guarantees to provide trucking companies with the best possible tire solution. This has led to the development of special tire lineups designed for a wide range of needs and types of use within the different transport industry segments. Truckers measure the benefit they can obtain by fitting their tractor-trailers with MICHELIN X[®] MultiWay 3D[™] tires: safety, first and foremost, plus excellent productivity and a lower total cost of ownership thanks to their total mileage and environmental-friendly features, namely the MICHELIN retreadable casing and regroovable tread.

¹ Tests conducted in June 2013 on a Mercedes Benz Actros 1842, loaded with 40 tonnes of cargo and equipped with new tires, driven 238 kilometers northeast of Munich at an altitude ranging from 320 to 480 meters. Each set of tires was tested twice on this long haul-type route.

² Using 315/70 R22.5 tires for the tractor and 385/55 R22.5 for the trailer, with tire pressure of 8.4 bar for the steering axle, 7.7 bar for the tractor axle and 9.0 bar for the trailer axles.

³ Data calculated for an average difference in consumption of 1.2 liters per 100 km, based on annual mileage of 130,000 km and a fuel price of €1.15 per liter. The formula is as follows: 1.2 times (130,000/100) times 1.15 = 1,794 euros.

⁴ Tests conducted in July 2013 on a Mercedes Benz 1820, loaded with 18 tonnes of cargo and equipped with new tires that were two-thirds worn by planning. The pressure for the 315/80 R22.5 tires used was 8.5 bar for the steering axle and 7.5 bar for the drive axle. Comparison of braking distance on a low-traction wet surface (friction coefficient of 0.27) using an anti-lock braking system.



Michelin's research and development capabilities: the heart of excellence

Michelin owes these results to its outstanding expertise and continuous investment in research and development. Every year, more than 6,600 researchers in 350 different job categories, working on three continents and backed by a budget of €622 million, design and develop tires that are safer, more efficient and more environmentally responsible. Longevity and endurance tests on roads and machines cover some 1.8 billion kilometers a year, equivalent to one full lap of the Earth every 12 minutes.

Michelin technology makes it possible to simultaneously offer safety, longevity, energy efficiency and grip. Performance is maintained over the long term by this ability to deliver more in the same tire through the deployment of advanced technologies and innovations such as the new Carbion rubber compound, Tower Pump 3D sipes and self-regenerating tread.

Michelin: in-depth knowledge of the world of transport

In engineering its tire lines, Michelin capitalizes on the vast hands-on experience acquired in the field. In 2011, Group experts carried out 320,000 visits to transport companies in more than 20 European countries, helping them to manage their tires. In addition to providing this service, the experts also gather customer feedback, thereby deepening Michelin's understanding of customer operating practices and needs. These customers are active across the transport industry, in both the goods segment (waste collection, automobiles, hazardous substances, cross-border haulage, vehicle rentals, etc.) and the passenger segment (city, intercity and tour buses).

Michelin's strategy is to develop tires that simultaneously deliver greater performance in more areas, providing benefits both to users and to fleet owners or managers. Among these areas, there is obviously longer total mileage, one of the basic features of every MICHELIN tire. There is also the ability to maintain performance levels over time, with the goal of offering users the safest possible ride and the most cost-effective tires across all of their lifecycles.

This ability was demonstrated in tests conducted by the two independent organizations: TÜV Sud Automotive and DEKRA.

Michelin, the leading tire company, is dedicated to sustainably improving the mobility of goods and people by manufacturing and marketing tires for every type of vehicle, including airplanes, automobiles, bicycles/motorcycles, earthmovers, farm equipment and trucks. It also offers electronic mobility support services on ViaMichelin.com and publishes travel guides, hotel and restaurant guides, maps and road atlases. Headquartered in Clermont-Ferrand, France, Michelin is present in more than 170 countries, has 113,600 employees and operates 69 production plants in 18 different countries. www.michelin.com.

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