

What you should know about **tyres**



Tyre performance

Facts and figures

FACT: **1/3** of respondents to a study carried out in 7 European countries admitted knowing “little or nothing” about how tyres influence their vehicle’s stopping distance or impact their grip on the road.
(Source: Goodyear Dunlop Road Safety Survey – 2010)

FACT: The difference in braking distances of premium and low budget all-season tyres present on the European market on **wet surface** (from 100 km/h): **12,8m**. The moment the first car stopped, the other was still running at a speed of **26 km/h**.
(Source: Auto Motor und Sport 14/2007)

FACT: With **winter tyres** the braking distance on **wet roads is reduced by 20%**
(Source: Cortina. A dynamic simulation test when temperature at 5°C)

FACT: The difference in braking distance between **summer** and **winter** tyres **on snow at -5 C degrees is 37m**. (NB. Winter tyres on summer conditions have longer braking distance – always fit according to the season!)
(Source: Goodyear Dunlop Road Safety Survey – 2010)

FACT: The difference between **G** and **A class** tyres (as measured in the tyre label) for a complete set of tyres could lead to **fuel consumption reduction of up to 7,5%** and even more in case of trucks.
(Source: European Commission Impact Assessment SEC(2008)2860)

FACT: Noise sources comparable to the future noise limits for passenger car tyres (67-74 dB) are, for example, a shower (70 dB) or a handheld electronic game (68-76 dB).
(Source: www.noisehelp.com, www.nonoise.org)

RESULT OF ETRMA ROAD SAFETY QUIZ IN 2008:

Although respondents were aware of the importance of checking tyre pressure, the issues of which they should learn more about are where to install a pair of new tyres, the role of and how to check tread depth, and where to check tyre pressure.

Four cornerstones of proper tyre maintenance

1. Fit tyres appropriate for the season

A winter tyre is **specifically designed** for use in icy and snowy conditions, in far lower temperatures than general use of tyres – less than 7° C – and in **vastly differing road conditions**. It allows the driver to optimise **adherence/grip on snow**, reduce **fuel consumption** and provides excellent traction, thanks to a dedicated tread.



A road is always **less predictable in winter** than in hot weather; irrespective of whether it's snowy, icy or just wet, the surface gives less grip. However, when the temperature remains above 7° C, summer tyres have better safety performance, especially in wet braking conditions. Therefore it is **important to change your tyres according to the season!**

2. Check your tyre tread depth

Driving with tyres with **less than 1,6 mm** tread depth is both **illegal and dangerous!**

Adequate tread depth is essential for good grip on wet roads as the tread pattern helps to remove water from the road surface. Drivers with insufficient tread depth face longer stopping distances, reduced grip and an increased risk for aquaplaning.



If you do not have a depth gauge, you can check the tread depth with a one-euro coin: insert the coin into the tread and if the golden ring of the coin remains visible, it is advisable to change the tyre. The tread depth is measured in the main grooves.

Modern tyres also have **a tyre wear indicator** which is very useful: the minimum legal tread depth of 1,6 mm has been reached when these supplementary crossbars are flush with the surrounding tread.

3. Check regularly your tyre pressure

The loss of **handling control** and increase in **vehicle drift** rises sharply as **tyre pressure** is reduced. Furthermore, low tyre pressure has an extremely negative effect on **tyre durability**,

due to **excessive stress** in the tyre shoulder and heat build-up from sidewall bending. The lower the tyre inflation pressure is, the higher is the effect on **aquaplaning**, braking on wet and dry roads and **tread wear**.

In addition, with a 25% loss of pressure, the tyre **rolling resistance** is increased by 10%, which in turn results in 2% more fuel consumption.

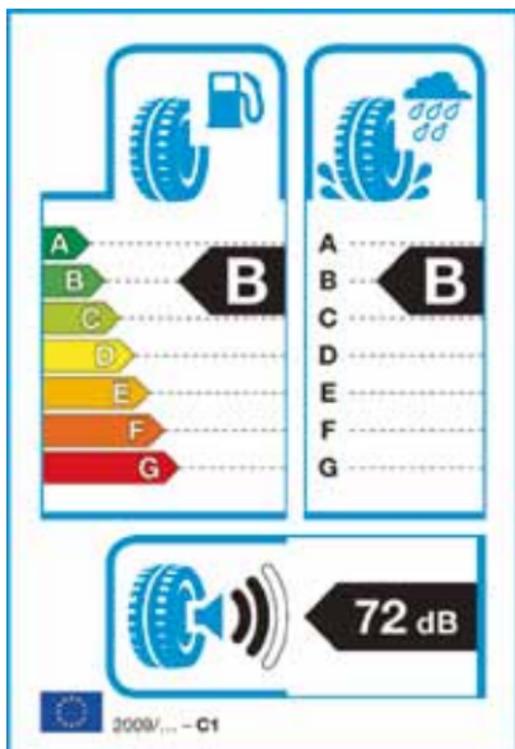


4. Tyre labelling helps you choose the tyre with optimal environmental and safety performance

Regulation 1222/2009 introduces labelling requirements with regard to the display of **information on the fuel efficiency, wet grip and external rolling noise of tyres**. Its aim is to

increase the safety and the environmental and economic efficiency of road transport by promoting fuel-efficient tyres, respecting high safety standards and low noise levels. This regulation allows end-users to take an informed decision when purchasing their tyres.

The Labelling obligation applies from NOVEMBER 2012 to passenger, light & heavy commercial vehicle tyres **PRODUCED AFTER 30 JUNE 2012** [production date code 2712].



Top three for public authorities

- 1. Effective market surveillance:** check tyres on the EU market and increase road safety by removing non-compliant and non-homologated tyres from the market; develop **Periodic Technical Inspections** and **Roadside Inspections** to better take into account tyre condition, and draft guidelines on fundamental and necessary tyre checking as part of vehicle compulsory control,
- 2.** Step up efforts to make everyone responsible through an **integrated approach:** vehicle technology, driver behaviour and road infrastructure,
- 3.** Maximise the efforts to **influence driver behaviour** by introducing joint private-public awareness programmes.

Top three for the driver

- 1.** Check your **tyre pressure** regularly – ideally every two weeks but at least once a month!
 - 2. Invest in the safety** of yourself, your family, and of all road users: invest in tyres which are made to match with the requirements of the season,
 - 3.** Fit always the **better/newest tyres on the rear axle**, regardless of whether your vehicle has front- or rear-wheel drive. This will increase safety in the event of unexpected and difficult situations (emergency braking, tight bends,...) especially on wet roads.
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