



# What is an EU Tyre Label?

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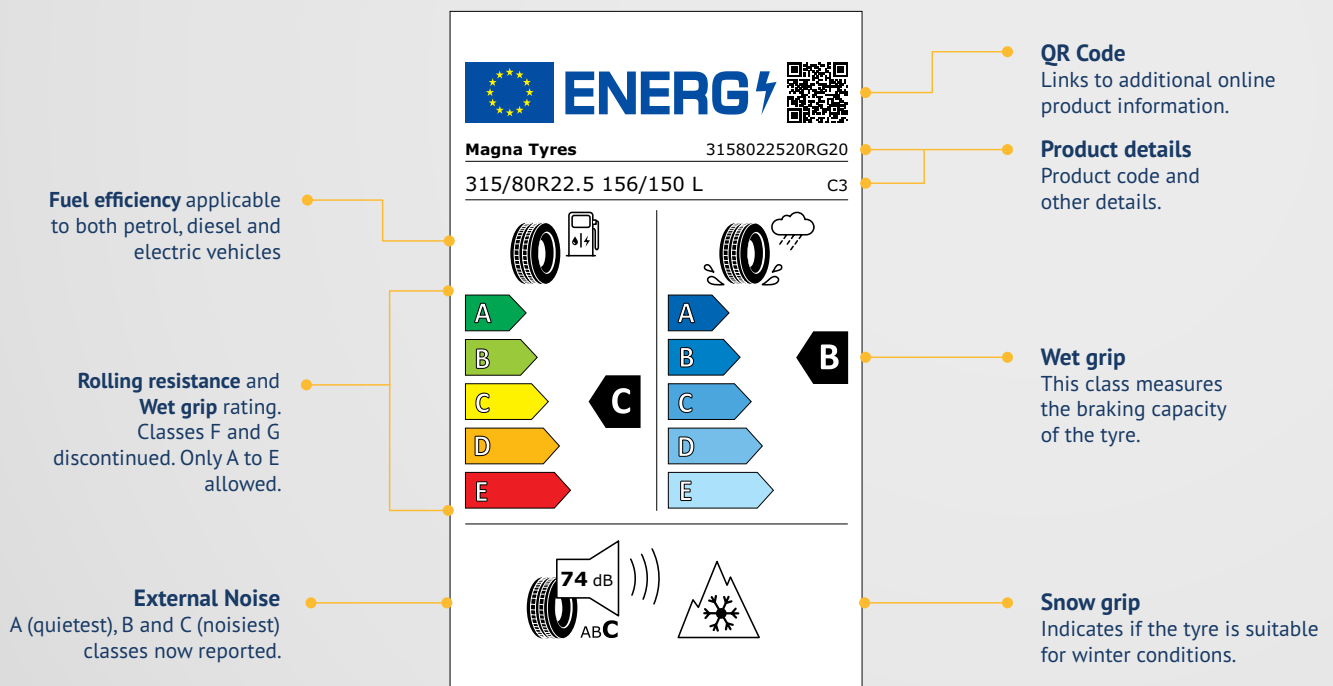


# Introduction.

As the designation 'OTR' (Off-The-Road) in OTR tyres suggests, vehicles using these types of tyres usually do not run on public roads. These tyres are developed to perform in heavy duty environments, such as quarries or ports. That means these tyres have properties for these conditions. Road tyres require completely different properties and in order to make sure all tyres meet the same safety standards, tyre labels have been created. With this white paper, we hope to give you more insights into what to look out for.

# What Are Tyre Labels?

Tyre labels are standardised information tags affixed to tyres, providing consumers with essential performance details. The labels aim to empower consumers to make informed choices by promoting awareness of a tyre's environmental impact, safety in wet conditions and noise levels. Manufacturers are required to comply with these labelling regulations, contributing to increased transparency in the tyre market and fostering environmentally conscious and safe driving practices. The regulation applies to the labelling for tyres for passenger cars, light commercial vehicles and heavy-duty vehicles, including Truck and Bus Radial (TBR) tyres. In the European Union, these labels convey information on three key aspects:





# Fuel Efficiency.

Tyres are responsible for approximately 20% of a vehicle's fuel consumption, mainly due to their rolling resistance. Rolling resistance is also known as 'rolling friction' or 'rolling drag' and basically means the resistance between the road surface and the tyre. This always comes down to a trade-off between traction and fuel efficiency. The 'grippier' a tyre is, the more friction a tyre has. That has a direct effect on the fuel efficiency since the vehicle has to 'work harder' to move the vehicle. The rubber compound has a lot to do with the amount of grip, and therefore friction, a tyre has. Tyre manufacturers spend a large amount of time and effort in balancing these properties, depending on the intended purpose of the tyre.

Reducing rolling resistance can help in improving on fuel efficiency but may also result in lower level of grip. Depending on the usage of the tyre, better grip or a better fuel economy might be preferable. A commercial truck might benefit more from a low fuel consumption, while a dump truck working in construction needs more grip on loose surfaces.

As rolling resistance of tyres has a direct effect on fuel efficiency. This is measured in fuel usage per 100 km in relation to the reference class. These classes are determined from A to G and is clearly stated on the tyre label.



# Wet Grip.

Tyres play a crucial role in the stopping distance of any vehicle. With 'stopping distance' we mean the distance from the moment you hit the brakes until the vehicles comes to a complete stop. As you may know, it's a lot easier to stop in dry conditions than it is in wet conditions. This has to do with the amount of water held on the tyres and lying on the road surface.

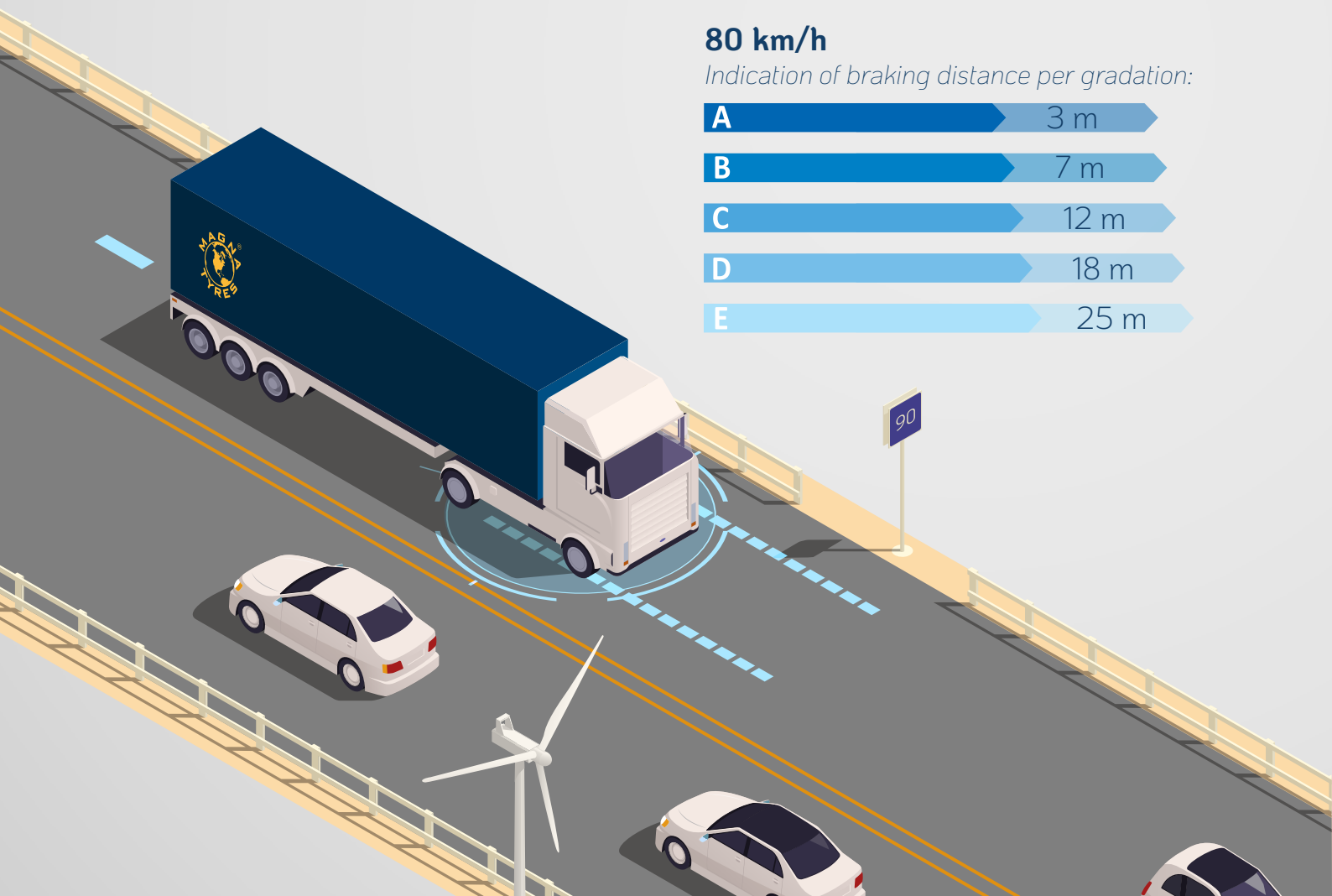
The tyre pattern or tread pattern is designed to disperse water as effectively as possible. The easier the water can flow from underneath the tyre, the better the tyre grips. This obviously has a direct impact on the stopping distance.

The stopping distances are formulated in the same manner as fuel efficiency, but from A to F. This class measures the braking capacity of the tyre and obviously, the shorter the distance, the better the class. The test consists in conducting a full emergency braking test at 80 km/h.

## 80 km/h

*Indication of braking distance per gradation:*

<b>A</b>	3 m
<b>B</b>	7 m
<b>C</b>	12 m
<b>D</b>	18 m
<b>E</b>	25 m



# External rolling noise.

The noise a tyre makes may not seem like the most important factor when deciding on which tyre to buy. However, when you spend a lot of time on the road, you may prefer it if a tyre is less noisy. One of the aspects of a tyre that has a lot of influence on the tyre noise is the tread pattern. Apart from the air circulating in the tyre itself, the air circulating through the grooves and large voids adds noise as well. The larger the grooves the more noise it creates. The amount of rubber and how hard the rubber compound is also greatly affects how much noise the tyre creates. Narrow tyres are quieter than wider tyres, since less rubber on the road means less friction and thus means less noise.

Just like fuel efficiency and wet grip, rolling noise is also measured and rated on the tyre label. The noise is measured through a microphone placed at 7.5 meters from the track, while the vehicle passes by at 80 km/h.

Noise is measured in decibels (dB) and tyre labels have three different noise bands. These bands are ranked as A, B or C where A is the lowest external noise emissions.

## Other Markings.

Tyre labels can also contain other markings that you will also find on the tyre itself. Usually the brand, model and size of the tyre is mentioned at the top of the label. We have written another white paper on how to read tyre markings. You can find the white paper on [magnatyres.com](https://magnatyres.com). Apart from those markings, you may find other markings such as a three peaked

mountain with a snowflake if a tyre is suitable for winter conditions. In the case of truck tyres, it is also important to pay attention to the position where the tyre will be mounted. For more information on this matter, we would like to refer to our white paper '[Types of Truck Tyres](#)'.



# Conclusion.

Tyre labels are designed for vehicles that drive on the road, not for OTR applications. It is a global summary of the most important factors you need to take into account when deciding on which tyre suits your needs. It focuses on fuel consumption, braking distance in the wet and the noise generated while driving. It is up to you to decide which factors are more important when choosing a tyre.

When you are in doubt which truck tyre suits your needs best, Magna Tyres is always ready to help. Reach out to our sales representatives for advice or a quote.





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