

Tyre Labelling – FAQ's

1. When will the new tyre label system be operational?

It will be mandatory as of November 2012 in all the countries of the European Union. Manufacturers will be allowed to communicate it a few months before.

2. How many countries will it be applied in?

In all 27 countries of the European Union.

3. What is this new European label system used for?

It informs the user on the safety and environmental aspects of car and truck tyres.

4. Why a new regulation?

- To promote tyres which are energy efficient, minimally noisy, and safer
- To ensure that the user has minimal, clear and identical information for all tyres available in the market

5. Which criteria were selected?

There are 3 of them:

- Rolling resistance
- Wet grip
- External noise

6. What is rolling resistance?

Rolling resistance is the force which opposes tyre rotation.

Unlike a glass marble rolling on a marble plate, tyres need to have a degree of suppleness to ensure comfort and grip.

This suppleness brings about the deformation of the tyre area in contact with the pavement. For each wheel rotation, the tyre is deformed due to the vehicle's weight. Such repeated deformation absorbs a lot of energy: at least 20% of fuel energy necessary for the trip in the case of a passenger vehicle (1 full tank of gas every 5!).

7. Does rolling resistance have an effect on consumption?

Yes. The more elevated the rolling resistance, the more a tyre uses energy to rotate. Between a tyre graded "A" and a tyre graded "G", there can be a consumption difference of 7.5%. This represents 50 litres saved every 10 000 kilometres for a car which consumes 7 litres /100 km.

8. What do the letters A to G stand for with regards to rolling resistance?

"A" is the best grade, and "G" the worse one. Between an "A" tyre and a "G" tyre, there is a 7.5% increase in fuel consumption, and therefore less CO₂ emitted into the environment.

9. How is rolling resistance measured?

Tyres are tested on vehicles set on approved rolling drum machines.

Rolling resistance is measured in kilograms per ton (kg/t). Grades go from simple to double.

A	RR of 4 kg/t max.
B	RR from 4,1 to 5 kg/t
C	RR from 5,1 to 6 kg/t
D	RR from 6,1 to 7 kg/t
E	RR from 7,1 to 8 kg/t
F	RR sup. to 8 kg/t
G	-

Scoring for a C1 category tyre

(vehicles used to transport people, with 4 wheels minimum and a maximum of 8 places not counting the driver and vehicles used to transport goods, with 4 wheels minimum and a weight not exceeding 3,5T).

“D” is not used.

A	RR of 6,5 kg/t max.
B	RR from 6,6 to 7,7 kg/t
C	RR from 7,8 to 9 kg/t
D	-
E	RR from 9,1 to 10,5 kg/t
F	RR from 10,6 to 12 kg/t
G	RR sup. to 12,1 kg/t

Scoring for a C2 category tyre

(vehicles used to transport people, with 4 wheels minimum, and with more than 8 places not counting the driver and vehicles used to transport goods, with 4 wheels minimum and a weight exceeding 3,5T)

“D” is not used.

A	RR of 5,5 kg/t max.
B	RR from 5,6 to 6,7 kg/t
C	RR from 6,8 to 8 kg/t
D	-
E	RR from 8,1 to 9,2 kg/t
F	RR from 9,3 to 10,5 kg/t
G	RR sup. to 10,6 kg/t

Scoring for a C3 category tyre (vehicles used to transport people, with 4 wheels minimum, and with more than 8 places not counting the driver and vehicles used to transport goods, with 4 wheels minimum and a weight exceeding 3,5T)

“G” is not used.

10. For rolling resistance, is there a grade limit under which one should not buy?

Safety is not taken into account. Everyone needs to choose according to price and other criteria.

Whatever the grade of the tyre selected, to save fuel, the vehicle will need to be regularly checked:

For tyres:

- pressure (which can make consumption vary by + or – 6%)
- nitrogen inflation helps to limit pressure drops and to allow more space between controls (every 3 months)
- alignment

For the engine:

To have the best energy efficiency, correct lubrication (regular oil change), clean filters (air filter and oil filter) and spark plugs in good shape are needed.

On the whole, there will be a 4% consumption increase or decrease.

11. What is wet grip?

The distance necessary to go from 60 km/h to 20 km/h is measured in a straight line on a wet road (variable water height between 0.5 and 2 millimetres).

12. Is the most important criterion wet grip?

Amongst the 3 criteria for the label system, wet grip is the one that has a direct impact on safety. It is therefore very important. But beware, whatever the grade of the chosen tyre, grip and braking quality also depend on tyre pressure, shape the braking discs are in, level and quality of braking fluid as well as shape the shocks are in.

One needs to remember to perform regular checks or to get someone to do them regularly.

13. In terms of wet grip, what is the difference between a car tyre graded “A” and a car tyre graded “G”?

There will be no car tyre graded “G” with regards to wet grip. The grades will stop at F. Between a tyre graded “A” and a car tyre graded “F”, there is a 30% braking distance difference (more than 18 metres at 80 km/h)!

14. Are there no tyres graded “G” with regards to wet grip?

No, the grading system is based on index variations (from 1.55 to 1.09). Below 1.09, all tyres are graded “F”.

15. How is wet grip measured?

The distance necessary to go from 80 km/h to 20 km/h is measured on a road covered with a water film from 0.5 to 1.5 millimetres high. An index is given to the tyre according to its results. Indexes range from 1.09 to 1.55.

Tyres with an index superior or equal to 1.55 are graded “A”, the best grade.

Tyres with an index inferior or equal to 1.09 are all graded “F”, the worst grade.

A	Index sup. to 1,55
B	Index between 1,54 and 1,4
C	Index between 1,39 and 1,25
D	-
E	Index between 1,24 and 1,1
F	Index inf. to 1,09
G	-

16. Why are dry grip or curb grip not taken into account?

The tyre label system could not take everything into account. However, it provides you with a first level of information. There are indeed other criteria to take into account to make the right choice with regards to vehicle use and the type of travel made.

17. What is external noise?

A moving vehicle creates a certain amount of noise perceived “outside of the vehicle”. Below 50 km/h, it is mostly engine noise. Above it, it is the rolling noise coming from the tyres which dominate. By limiting the “exterior noise” of the tyres, the noise pollution of road travel is therefore limited.

In all cases, the exhaust system will need to be checked regularly. It is also an important source of noise pollution.

Tyre inflation pressure also has an effect on the tyres’ rolling noise. Remember to check it regularly.

18. Why measure tyre noise?

The objective is to fight noise pollution.

Tyre labelling provides noise level produced outside of a vehicle at 80 km/h.

Above 50 km /h, tyre rolling noise catches up to, then goes beyond, engine noise.

19. How is the external noise produced by the tyres measured?

An equipped vehicle drives on a given type of pavement. At 80 km/h, the engine is switched off and the noise made by the “freewheeling” vehicle is measured while passing in front of microphones. This noise is expressed in decibels.

20. How is external rolling noise indicated on the label?

Rolling noise is expressed in number of decibels produced.

Beware: a 3 decibel difference is equivalent to double the noise level.

21. What do the loudspeakers with the black waves represent?

They indicate noise level rating with regards to current regulation and to regulation that will be implemented in 2016:

- 3 waves: noise level in compliance with current legislation but too noisy with regards to the norms defined for 2016.
- 2 waves: the level is in compliance to current legislation and to 2016 legislation.
- 1 wave: the noise level is excellent: not only in compliance with current legislation but 3 decibels (or more) below the maximum authorised in 2016.

22. What type of noise does a noise pollution of 70 decibels correspond to?

70 decibels (70 dB) correspond to a telephone landline ringing, for example, and 75 decibels (75 dB) to the noise of a vacuum.

The decibel is a peculiar measurement unit: every 3 decibels, noise doubles.

23. How do I use this label?

It’s an excellent start. You need to complete it though, especially with longevity, and take into account the particularities of your travels and your vehicle.

24. Is this new label system really useful?

The industry is glad that this new label system is being set up.

It attracts the attention of the consumer on the differences that can occur between tyres being sold.

It helps to improve the level of quality for the products sold.

25. How can I be certain to make the right choice?

Beyond the 3 criteria marked on the new label, you will need to add longevity (it can double from one brand to the next!) and take into account the nature of the most frequent types of travel, the type of vehicle and your driving style.

Don't hesitate to go to a specialist for advice.

26. Does this new label system make it possible to choose tyres?

To choose the tyres that correspond to the user's needs, numerous criteria need to be taken into account – those on the new label system, and others not listed by this regulation, such as longevity or curb grip... Without forgetting to take the type of travel into account.

27. These criteria are measured on new tyres. How can such performance be made to last over time?

Manufacturing quality, a good tyre fit with regards to vehicle and use, setting and servicing quality (pressure and alignment especially) all make a difference.

It's better to get some professional advice

28. Are there other criteria that need to be taken into account?

Yes. These can be different according to users, taking into account their business, their trip...

Kilometre longevity is an essential criterion in order to directly compare prices, for example.

Straight-ahead dry grip and wet grip are criteria that need to be taken into account with regards to safety.

29. What are the criteria which were not selected for this new grading system that will still need to be taken into account?

The most important ones are:

- Longevity
- Grip on dry
- Grip on wet
- Road holding on wet in curves
- Road holding under winter conditions

Their importance can vary according to vehicle and travel type.

30. Why does the new label system not integrate longevity?

There is no testing method today that is sufficiently simple and precise to be applied to all the tyres in the market.

31. What should I do to service my tyres well?

Pressure and alignment need to be controlled regularly, not forgetting the spare tyre.

If you are not equipped to do so, the best solution is to entrust these operations to a professional.

Some of them can perform a wide diagnostic (wear regularity, alignment, shape the braking system is in, etc.), which will allow you to drive safely with a peaceful mind.

32. What criteria should be favoured?

Safety should remain a priority in all circumstances. Grip, braking and handling should be favoured. Parameters should be set up according to travel and vehicle type. Then longevity should be favoured for its impact on the price per kilometre.

33. To be certain to make the right choice outside of noise considerations, should I choose a tyre graded “A” for the other 2 criteria?

No. With two “A” grades, you will have the best in fuel savings and wet grip. These performances will have to be balanced out with the needs linked to your own travel and tyre price at that level.

To be certain to make the right choice, you will also need to question longevity.

It can vary from simple to double.

34. Is it the same system as the one used for household appliances?

More or less. For tyres, there are only 3 criteria taken into account. The objective is to make buyers more aware of safety and environmental aspects.

35. For travel predominantly in the city, which criteria should I favour?

Urban travel is done at a speed below 50 km/h. The rolling noise is therefore not very perceivable.

It is therefore not a priority criterion. Longevity and braking distance under any circumstance (dry pavement, wet pavement, and slippery pavement) are important for urban traffic.

36. For travel predominantly on motorways, which criteria should I favour?

Rolling resistance for fuel savings and CO₂ emission reduction, longevity for cost per kilometre, and of course safety criteria: wet/dry grip and braking.

37. Where will this label be featured?

The label will be glued on the tyres of cars (and light utilitarian vehicles). The information will also be available on sales documents and on the Internet.

38. What organisation carries out testing, and is it independent?

The tests will be made by the manufacturers themselves according to a methodology established by law. Checks will be made later by independent bodies.

39. Are all tyres concerned?

This new regulation concerns tyres for passenger cars, light utilitarian vehicles, trucks, coaches and buses.

Are not concerned by regulation:

- retreaded tyres
- professional non-road tyres (off-road high grip tyres, for example)
- tyres designed for competition
- studded tyres (warning: stud-able tyres that are provided without studs are still subject to regulation)
- spare tyres for temporary use
- tyres designed to be mounted on vehicles registered for the first time before October 1st, 1990
- tyres with a speed rating lower than 80 km/h
- tyres with a rim diameter that is inferior or equal to 254 mm (10 inches) or superior or equal to 635 mm (25 inches)

40. Is it an ecology label, just like the one for household appliances?

The objective is to promote tyres that are safer and more ecological. Two criteria out of three are oriented towards these environmental features: rolling resistance and exterior rolling noise.