

## Tyre labelling: VdTÜV recommendations on competitiveness, consumer information and better regulation for the EU

Tyres are the only point of contact between a vehicle and the road. As such, they are an essential part of the road safety picture. In winter times, wet roads, cold temperatures, snow and ice can contribute to potentially dangerous situations including loss of grip, aquaplaning and longer stopping distances. However, correct tyre maintenance and care are critical for safety all year long. Drivers need to make sure that tyres (including the spare ones) are always maintained to the highest levels of safety and efficiency by checking, for example, that tyres are properly inflated, that they comply with the minimum allowed tread depth and do not present any lumps, bulges or cracks.

Following the Paris Agreement, the world has committed to moving towards a low-carbon economy. Many countries are now implementing policies to facilitate the transition to cleaner economies, improving sustainable development, and encouraging the move towards a circular economy. The Tyre Labelling Regulation (EC) No 1222/2009 has to be reviewed in this broader context. As tyres account for 20-30 percent of a vehicle's fuel consumption, their performance has a significant impact on the fuel efficiency and greenhouse gas emissions of vehicles. In the past 25 years, transport emissions have however steadily increased as the demand for mobility grew. Today, transport accounts for about a quarter of the EU's greenhouse gas emission, with road transport alone being responsible for 22%. Further emission reductions from road transport are therefore indispensable to achieve the EU's commitments to reduce CO<sub>2</sub> emissions by at least 40% in 2030.

The aim of the Tyre Labelling Regulation is to increase the safety, the economic and environmental efficiency of road transport by promoting fuel-efficient and safe tyres with low noise levels. In general, the objective of the labelling scheme for tyres in the EU is to respond to the market failure arising from the lack of information of consumers on fuel efficiency and other essential parameters of all new tyres. The label should be designed in a way allowing consumers to make a careful decision, giving incentives to tyre manufactures to improve their products and raising public awareness.

An effective label will better contribute to ensure safe, clean and quiet cars. According to the review study on the Regulation (EC) No 1222/2009 on the labelling of tyres<sup>1</sup> there is only a relatively low relevance of the information given in the label for the consumers and many would demand a more strict and public market control to trust in the information shown.

The Association of Technical Inspection Agencies (VdTÜV e.V.) recommends an extensive revision of the existing Tyre Labelling Regulation to increase the economic and environmental efficiency, as well as the safety of road transport by promoting fuel efficient and safe tyres with low external rolling noise.

A new regulation shall take into account the following issues:

- a) Mandatory and independent third-party testing of the tyre performance

In general, the information concerning safety, energy efficiency and environmental protection provided to end customer must be more reliable. The Tyre Labelling Regulation has implemented a “self-declaration system”. Tyre manufacturers assess the performance criteria of their own products according to defined rules of testing and inform consumers about their own results. In contrary to the type approval system for tyres, using the same test procedures, there is no certification by a third party (independent verification). No evidence on competence for testing is required, e.g. accreditation as test laboratory or designation as a Technical Service. A label based on the neutrality and competence of a third party organization would make a positive contribution to the confidence of market participants and provide the consumer with a valuable means of orientation, enabling them to compare products realistically. Therefore a system of mandatory confirmation tests such as Conformity of Production (CoP), performed by third-party laboratories, should be implemented.<sup>2</sup>

Concerning the implementation of new procedures for the assessment of tyres VdTÜV refers to the new European regulations on emissions and fuel consumption.<sup>3</sup> According to these regulations “certified values” like the tyre rolling resistance coefficient<sup>4</sup> are implemented to provide a more realistic label on emissions and fuel consumption of new vehicles.

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<sup>1</sup> Review study on the Regulation (EC) No 1222/2009 on the labelling of tyres prepared by Viegand Maagøe [https://ec.europa.eu/energy/sites/ener/files/documents/Study%20in%20support%20of%20the%20Review%20of%20the%20Tyre%20Labelling%20Regulation\\_final.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/Study%20in%20support%20of%20the%20Review%20of%20the%20Tyre%20Labelling%20Regulation_final.pdf)

<sup>2</sup> The benefit of the Third Party Assessment: [https://www.vdtuev.de/dok\\_view?oid=502425](https://www.vdtuev.de/dok_view?oid=502425)

<sup>3</sup> Draft Commission Regulation (EU) .../... implementing Regulation (EU) No 595/2009 of the European Parliament and of the Council as regards the determination of the CO<sub>2</sub> emissions and fuel consumption of heavy-duty vehicles and amending Directive 2007/46/EC of the European Parliament and of the Council and Commission Regulation (EU) No 582/2011 [http://eur-lex.europa.eu/legal-content/LV/TXT/?uri=pi\\_com%3AAres%282017%291900557](http://eur-lex.europa.eu/legal-content/LV/TXT/?uri=pi_com%3AAres%282017%291900557)

<sup>4</sup> The tyre rolling resistance coefficient shall be the value measured and aligned in accordance with Regulation EC 1222/2009 Annex I part A, expressed in N/kN and rounded to the first decimal place, according to ISO 80000-1 Appendix B, section B.3, rule B (example1).

The tyre manufacturer may test in a laboratory of the Technical Services (TS), as defined in Article 41 of Directive 2007/46/EC, where the TS performs the testing in its own facility as referred to in paragraph 3.1. Or the tyre manufacturer may test in its own facilities under the condition that:

- a. A representative of a Technical Service designated by an approval authority is present, or
- b. The tyre manufacturer is appointed as a Technical Service of Category A in accordance with Directive 2007/46/EC Art. 41.

b) Introducing snow and ice performance information on the label

According to the final report of the review study on the Regulation (EC) No 1222/2009 on the labelling of tyres, issued in March 2016, the following is recommended regarding the aspects of snow and ice performance:

“Snow and ice performance should be included in the labelling scheme on a voluntary basis in order to avoid misleading end-users purchasing tyres for wintry conditions, aiding them in selecting the most appropriate tyre, and to improve road safety during winter periods. However, it could be recommended that the 3-PMSF be put compulsory on the tyre label in case it is also shown on the tyre sidewall”<sup>5</sup>

The snow grip performance test repeatability and sensitivity to environmental and test conditions (mainly snow surface and performance of the SRTT) shall be improved and the current test methods used for assessing the snow grip index (UNECE Regulation No. 117) be evaluated. Depending on the class of tyre still only one or two of three different methods are applicable nowadays: brake on snow method and/or spin traction method and/or acceleration method. Physically the procedures are quite different but all of them must finally provide the same characteristic performance indicator, the Snow grip index. For the purpose of tyre labelling, limiting the variety of procedures and uniform application to all tyre classes is recommended.

For ice performance assessment there is currently no method available on European legislation level (including UNECE); this would be a completely new test to be developed and introduced into European law.

c) Provision of more reliable results as basis for the information on the label

According to the final report of March 2016 mentioned above it is highly recommended to “solve the problems with repeatability/reproducibility of test methods and results with regard to wet grip according to the ongoing ETRTO study on the subject, and to include the corrections in the Tyre Labelling Regulation.”

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<sup>5</sup> Refer to:

[https://ec.europa.eu/energy/sites/ener/files/documents/Study%20in%20support%20of%20the%20Review%20of%20the%20Tyre%20Labelling%20Regulation\\_final.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/Study%20in%20support%20of%20the%20Review%20of%20the%20Tyre%20Labelling%20Regulation_final.pdf)

Problems for repeatability are e.g. different results when assessing characterization of track surfaces for wet braking by two different allowed methods. This leads to different physical characteristic values (BPN or PBC) that are not directly comparable, or to an imprecise definition of acceptable condition and wear of reference test tyres “SRTT” (mainly age, tread depth). Furthermore, different methods for the test that do not always lead to the same results. And some methods cannot be applied by all participants of the labelling system due to missing availability of sophisticated and cost intensive equipment

We would also like to remark that in the ETRTO study on wet grip, also mentioned in the final report, no contribution of independent test institutions, as e.g., Technical Services, or no Expert Group at the European Commission level is involved up to now. This does not match with the efforts undertaken by the European Commission to improve accuracy of rolling resistance results by implementing an Expert Group on laboratory alignment for the measurement of tyre rolling resistance.

For aligning the method of determining characteristic values for wet grip test track surfaces, especially evenness, traction and substance characteristics, there are already approved methods available in Germany that could be adopted.<sup>6</sup>

Concerning noise tests the final report comes to this conclusion:

“For the external rolling noise test, there are also challenges related to obtaining reproducible results, since there is a large spread of surfaces allowed in the test. The test method follows an ISO norm and is performed as a track test. The industry is currently working on suggestions for improvement of the noise test in addition to those for the wet grip test.”

In the work performed by the industry, mentioned in the above Final Report, no contribution of independent test institutions as e.g. Technical Services or no Expert Group at the European Commission level is involved up to now.

#### d) Market surveillance activities

The identification of non-conform products is in the responsibility of national market surveillance authorities of the Member States. In line with regulation (EU) 765/2008, they must monitor the compliance with the provisions on labelling through market surveillance and assess the conformity of the declared grading values. However, the first review of the labelling system in 2015 and 2016 has shown that the overall financial and human resources of market surveillance authorities are not sufficient to ensure an adequate enforcement. Most Member States have only one national market surveillance authority and few have regional market surveillance, which

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<sup>6</sup> Refer to BAST - Road Monitoring and Assessment in Germany (ZEB): [http://www.bast.de/EN/Highway\\_Construction/Subjects/GS4-e-IT-ZEB.html](http://www.bast.de/EN/Highway_Construction/Subjects/GS4-e-IT-ZEB.html)

leads to different levels and intensity of market surveillance activities. Therefore in 2016 the Market Surveillance Project TYRES 2015 (MSTyr15) was implemented by ProSafe, funded by the HORIZON 2020.

The objective of this program is to help delivering the intended economic and environment benefits of the labelling of class C1 (summer passenger car) tyres with respect to improving fuel efficiency and other essential parameters by increasing the rates of compliance with the regulatory requirements. This will be achieved through coordinating the monitoring, verification and enforcement activities of 15 Market Surveillance Authorities (MSAs) across the Single Market and Turkey. Market surveillance must urgently be improved and brought to a consistently high level in Europe. Only independent market surveillance can guarantee that the overall objective of the regulation is fulfilled.