

**DRAFT REGULATION ON THE LABELLING OF TYRES WITH RESPECT TO  
FUEL EFFICIENCY AND OTHER PARAMETERS  
(2020/740/EU)**

**PART I**

**Objective, Scope, Legal Basis and Definitions**

**Objective and scope**

**ARTICLE 1** – (1) This Regulation establishes a framework for the provision of harmonised information on tyre parameters through labelling to allow end-users to make an informed choice when purchasing tyres, for the purpose of increasing safety, the protection of health, and the economic and environmental efficiency of road transport, by promoting fuel-efficient, long-lasting and safe tyres with low noise levels.

(2) This Regulation applies to C1 tyres, C2 tyres and C3 tyres that are placed on the market. Requirements for re-treaded tyres apply once a suitable testing method to measure the performance of such tyres is available in accordance with Article 13.

(3) This Regulation does not apply to:

- a) off-road professional tyres;
- b) tyres designed to be fitted only on vehicles registered for the first time before 1 October 1990;
- c) T-type temporary-use spare tyres;
- ç) tyres whose speed rating is less than 80 km/h;
- d) tyres whose nominal rim diameter does not exceed 254 mm or is 635 mm or more;
- e) tyres fitted with additional devices to improve traction properties, such as studded tyres;
- f) tyres designed only to be fitted on vehicles intended exclusively for racing;
- g) second-hand tyres, unless such tyres are imported from a third country.

**Legal Basis**

**ARTICLE 2** – (1) This Regulation has been prepared based on the Article 29 of Law No. 2918 on the Road Traffic dated 13/10/1983, Article 4 of Law No. 7223 on the Product Safety and Technical Regulations dated 12/3/2020 and Presidential Decree No. 1 on the Presidency Organization published in the Official Gazette No. 30474 dated 10/7/2018.

**Definitions**

**ARTICLE 3** – (1) For the purpose of this Regulation the following definitions shall apply:

- a) ‘EU’ means European Union,
- b) ‘Ministry’ means Ministry of Industry and Technology;
- c) UN/ECE’ means The United Nations Economic Commission for Europe,
- ç) C1 tyres’, ‘C2 tyres’ and ‘C3 tyres’ means tyres belonging to the respective classes set out in Article 8(1) of Regulation on type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (661/2009/EU) published in the Official Gazette No. 28184 dated 25/01/2012,
- d) ‘distributor’ means a natural or legal person in the supply chain, other than the supplier, who makes a product available on the market,
- e) ‘verification tolerance’ means the maximum admissible deviation between the measurement and calculation results of the verification tests performed by, or on behalf of, the Ministry, and the values of the declared or published parameters, reflecting deviation arising from interlaboratory variation,
- f) ‘equivalent tyre type’ means a tyre type which is placed on the market by the same supplier as another tyre type with a different tyre type identifier and which has the same

technical characteristics that are relevant to the tyre label and the same product information sheet,

g) ‘Manufacturer’ means a natural or legal person who manufactures a product or has a product designed or manufactured, and markets that product under its name or trademark,

ğ) ‘Importer’ means any natural or legal person established in Turkey who imports and places a product from abroad on the market,

h) QR code (QR code): The matrix structure in the tire label that provides access to the necessary tire information in the public section of the product database or on the supplier's website,

i) ‘re-treaded tyre’ means a used tyre that is reconditioned by replacing the worn tread with new material,

ı) ‘comission’ means European Comission,

j) ‘tyre label’ means a graphic diagram, in printed or electronic form, including in the form of a sticker, which includes symbols in order to inform end-users about the performance of a tyre or batch of tyres in relation to the parameters set out in Annex I,

k) ‘tyre type’ means a version of a tyre for which the technical characteristics on the tyre label, the product information sheet and the tyre type identifier are the same for all units of that version,

l) ‘tyre type identifier’ means a code, usually alphanumeric, which distinguishes a specific tyre type from other tyre types that have the same trade name or the same trademark as that of the supplier,

m) ‘distance selling’ means the offer for sale, hire or hire purchase by mail order, catalogue, internet, telemarketing or by any other method by which the potential end-user cannot be expected to see the tyre displayed,

n) ‘end-user’ means a consumer, fleet manager or road transport undertaking that buys or is expected to buy a tyre,

o) ‘parameter’ means a tyre characteristic that has a significant impact on the environment, road safety or health during the use of the tyre, such as tyre abrasion, mileage, rolling resistance, wet grip, external rolling noise, snow grip or ice grip,

ö) ‘Making available on the market’ means the supply of a product for distribution or use on the market in the course of a commercial activity, whether in return for payment or free of charge,

p) ‘placing on the market’ means the first making available of a product on the market,

r) ‘off-road professional tyre’ means a special-use tyre used primarily in severe off-road conditions,

s) ‘point of sale’ means a location where tyres are displayed or stored and are offered for sale, including car show rooms where tyres that are not fitted on vehicles are offered for sale to end-users,

ş) ‘T-type temporary-use spare tyre’ means a temporary-use spare tyre designed for use at inflation pressures higher than those established for standard and reinforced tyres,

t) ‘Supplier’ means a manufacturer established in Turkey, the authorised representative of a manufacturer who is not established in Turkey, or an importer, who places a product on the market,

u) ‘technical documentation’ means documentation sufficient to enable the Ministry to assess the accuracy of the tyre label and the product information sheet, including the information set out in point (2) of Annex VII,

ü) ‘technical promotional material’ means documentation, in printed or electronic form, that is produced by a supplier to supplement advertising material with the information set out in Annex IV,

v) ‘product information sheet’ means a standard document containing the information set out in Annex III in printed or electronic form,

- y) “Member States” mean the member states of the European Union,
- z) ‘product database’ means a product database defined in Article 4(u) of the Regulation on Framework for Energy Labelling published in the Official Gazette by the Presidential Decree dated March 1, 2021 and numbered 3584,
- aa) “Authorised representative” means a natural or legal person established in Turkey who has received a written mandate from the manufacturer to act on its behalf in relation to specified tasks.

## **PART II**

### **Obligations of Suppliers and Distributors**

#### **Obligations of tyre suppliers**

**ARTICLE 4 –** (1) Suppliers shall ensure that C1 tyres, C2 tyres and C3 tyres that are placed on the market are accompanied free of charge:

a) for each individual tyre, by a tyre label, in the form of a sticker, that complies with the requirements set out in Annex II, indicating the information and class for each of the parameters set out in Annex I, and by a product information sheet; or

b) for each batch of one or more identical tyres, by a printed tyre label that complies with the requirements set out in Annex II, indicating the information and class for each of the parameters set out in Annex I, and by a product information sheet,

(2) For tyres sold or offered for sale by distance selling, suppliers shall ensure that the tyre label is displayed close to the price indication and that the product information sheet can be accessed, including, upon request from the end-user, in printed form. The size of the tyre label shall be such that it is clearly visible and legible and shall be proportionate to the size specified in point 2.1 of Annex II. For tyres sold or offered for sale on the internet, suppliers may make the tyre label for a specific tyre type available in a nested display.

(3) Suppliers shall ensure that any visual advertisement for a specific tyre type shows the tyre label. If the visual advertisement indicates the price of that tyre type, the tyre label shall be displayed close to the price indication. For visual advertisements on the internet, suppliers may make the tyre label available in a nested display.

(4) Suppliers shall ensure that any technical promotional material concerning a specific tyre type displays the tyre label of that tyre type and includes the information set out in Annex IV.

(5) Suppliers shall provide to the Ministry the values used to determine the related classes and any additional performance information that the supplier declares on the tyre label of tyre types in accordance with Annex I to this Regulation, as well as the tyre label that complies with the requirements set out in Annex II to this Regulation. That information shall be submitted to the Ministry on the basis of Article 5(1) and (2) of this Regulation before the placing on the market of the tyre types in question, so that the Ministry may verify the accuracy of the tyre label.

(6) Suppliers shall ensure the accuracy of the tyre labels and product information sheets that they provide.

(7) Suppliers may make technical documentation available to the authorities of Member States other than those authorities indicated in paragraph 5 or to relevant national accredited bodies on request.

(8) Suppliers shall cooperate with the Ministry and shall take immediate action to remedy any case of non-compliance with this Regulation for which they are responsible, at their own initiative or when required to do so by the Ministry. (9) Suppliers shall not provide or display other labels, marks, symbols or inscriptions that do not comply with this Regulation and that

would be likely to mislead or confuse end-users with respect to the parameters set out in Annex I.

(10) Suppliers shall not provide or display labels that mimic the tyre label provided for under this Regulation.

### **Obligations of tyre suppliers in relation to the product database or suppliers' websites**

**ARTICLE 5** – (1) From 1 May 2021, suppliers shall enter the information set out in Annex VII into the product database or suppliers' websites before placing on the market a tyre produced after that date.

(2) For tyres that are produced between the publication date of this Regulation and 30/4/2021, the supplier shall enter the information set out in Annex VII into the product database or suppliers' websites by 30 November 2021.

(3) For tyres that are placed on the market before 25 June 2020, the supplier may enter the information set out in Annex VII into the product database or suppliers' websites.

(4) Until the information referred to in paragraphs 1 and 2 has been entered into the product database or suppliers' websites, the supplier shall make an electronic version of the technical documentation available for inspection within 10 working days of receiving a request from the Ministry.

(5) Where the Ministry need information other than that set out in Annex VII in order to carry out their tasks under this Regulation, the supplier shall provide them with that information on request.

(6) A tyre for which changes are made that are relevant for the tyre label or the product information sheet shall be considered to be a new tyre type. The supplier shall indicate in the product database or suppliers' websites when it has ceased to place on the market units of a certain tyre type.

(7) After the final unit of a tyre type has been placed on the market, the supplier shall keep the information concerning that tyre type for a period of five years.

### **Obligations of tyre distributors**

**ARTICLE 6** – (1) Distributors shall ensure that:

a) at the point of sale, tyres bear a tyre label, in the form of a sticker, that complies with the requirements set out in Annex II, provided by the supplier in accordance with point (a) of Article 4(1) in a clearly visible position and legible in its entirety, and that the product information sheet is available, including, upon request, in printed form; or

b) before the sale of a tyre that is part of a batch of one or more identical tyres, a printed tyre label that complies with the requirements set out in Annex II, is shown to the end-user and is clearly displayed close to the tyre at the point of sale, and that the product information sheet is available.

(2) Distributors shall ensure that any visual advertisement for a specific tyre type shows the tyre label. If the visual advertisement indicates the price of that tyre type, the tyre label shall be displayed close to the price indication. For visual advertisements on the internet for a specific tyre type, distributors may make the tyre label available in a nested display.

(3) Distributors shall ensure that any technical promotional material concerning a specific tyre type displays the tyre label and includes the information set out in Annex IV.

(4) Distributors shall ensure that where tyres offered for sale are not visible to the end-user at the time of sale, they provide the end-user with a copy of the tyre label before the sale.

(5) Distributors shall ensure that any paper-based distance selling shows the tyre label and that end-users can access the product information sheet through a free access website, and can request a printed copy of the product information sheet.

(6) Distributors that use telemarketing-based distance selling shall inform end-users of the classes for each of the parameters on the tyre label, and inform end-users that they can access the tyre label and the product information sheet through a free access website, and by requesting a printed copy.

(7) For tyres sold or offered for sale on the internet, distributors shall ensure that the tyre label is displayed close to the price indication and that the product information sheet can be accessed. The size of the tyre label shall be such that it is clearly visible and legible and shall be proportionate to the size specified in point 2.1 of Annex II. Distributors may make the tyre label for a specific tyre type available in a nested display.

### **Obligations of vehicle suppliers and vehicle distributors**

**ARTICLE 7** – (1) Where end-users intend to acquire a new vehicle, vehicle suppliers and vehicle distributors shall provide, before the sale, those end-users with the tyre label for the tyres offered with or fitted on the vehicle and any relevant technical promotional material, and shall ensure that the product information sheet is available.

### **Obligations of hosting service providers**

**ARTICLE 8** – (1) Where a service provider as referred to in Regulation on Regulation on Service Providers and Intermediary Service Providers in Electronic Commerce published in the Official Gazette No. 29457 dated 26/08/2015 allows the selling of tyres through its internet site, that service provider shall enable the display of the tyre label and the product information sheet provided by the supplier close to the price indication and shall inform the distributor of the obligation to display the tyre label and the product information sheet.

### **Testing and measurement methods**

**ARTICLE 9** – (1) The information to be provided under Articles 4, 6 and 7 on the parameters indicated on the tyre label shall be obtained in accordance with the testing methods referred to in Annex I and the laboratory alignment procedure referred to in Annex V.

### **Verification procedure**

**ARTICLE 10** – (1) For each of the parameters set out in Annex I, Member States shall apply the verification procedure set out in Annex VI when assessing the conformity of the declared classes with this Regulation.

### **Obligations of Ministry**

**ARTICLE 11** – (1) The Ministry shall not impede the placing on the market or putting into service of tyres within its territory, where such tyres comply with this Regulation.

(2) Where the Ministry provides incentives with regard to tyres, such incentives shall target only tyres in class A or B with respect to rolling resistance or wet grip within the meaning of Parts A and B of Annex I, respectively. Taxation and fiscal measures shall not constitute incentives for the purposes of this Regulation.

(3) Without prejudice to Regulation on Market Surveillance and Inspection of Products put into force by the Council of Ministers numbered 2001/3529 and dated 13/11/2001, where the Ministry has sufficient reason to believe that a supplier has not ensured the accuracy of the tyre label in accordance with Article 4(6) of this Regulation, it shall verify that the classes and any additional performance information declared on the tyre label correspond to the values and to the documentation submitted by the supplier, in accordance with Article 4(5) of this Regulation.

(4) In accordance with the Regulation on Market Surveillance and Inspection of Products, the Ministry shall establish a system of routine and ad hoc inspections of points of sale for the purposes of ensuring compliance with this Regulation.

(5) The Ministry shall lay down the rules on penalties and enforcement mechanisms applicable to infringements of this Regulation and of the delegated acts adopted pursuant thereto, and shall take all necessary measures to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive. The Ministry shall notify the Commission of those rules and of those measures that have not previously been notified to the Commission through the Ministry of Trade and shall notify it, without delay, of any subsequent amendment affecting them.

### **Market surveillance and control of products**

**ARTICLE 12** – (1) The Ministry shall carry out market surveillance of tyres placed on the market in accordance with the Law No. 7223, the Regulation on Market Surveillance and Inspection and other related legislation.

(2) The Ministry may cooperate with the Commission and the relevant institutions of the member states within the scope of the implementation of this Regulation.

(3) The Ministry shall ensure that national market surveillance strategies established pursuant to the Regulation on Market Surveillance and Inspection of Products include actions to ensure the effective enforcement of this Regulation.

(4) The Ministry may recover the costs of document inspection and physical product testing from the supplier in case of non-compliance by the supplier with this Regulation or the relevant delegated acts adopted pursuant thereto.

### **Delegated acts**

**ARTICLE 13** – (1) Following the publication of the delegated acts in the EU within the scope of this Regulation, the delegated acts shall be transposed into the national law by the Ministry.

### **Compliance with the European Union Legislation**

**ARTICLE 14** – (1) This Regulation has been prepared based on the Regulation (EU) 2020/740 of the European Parliament and of the Council of 25 May 2020 on the labelling of tyres with respect to fuel efficiency and other parameters, amending Regulation (EU) 2017/1369 and repealing Regulation (EC) No 1222/2009.

(2) In case of any disagreement or mistake in the provisions of this Regulation, the original text of Regulation (EU) 2020/740 specified in the first paragraph shall be taken as basis. The decision/guideline published in the EU within the scope of the implementation of Regulation (EU) 2020/740 is applied for the purposes of this Regulation.

### **Repealed regulation**

**ARTICLE 15** – (1) The Regulation on the labelling of tyres with respect to fuel efficiency and other essential parameters published in the Official Gazette No. 28370 dated 31/07/2012 (1222/2009/EU) is repealed.

(2) References to the repealed Regulation on the labelling of tyres with respect to fuel efficiency and other essential parameters shall be construed as references to this Regulation.

### **Entry into force**

**ARTICLE 16** – (1) This Regulation shall enter into force on 01/05/2021.

### **Enforcement**

**ARTICLE 17** – (1) The provisions of this Regulation shall be enforced by the Minister of Industry and Technology.

## ANNEX I

### TESTING, GRADING AND MEASUREMENT OF TYRE PARAMETERS

#### Part A: Fuel efficiency classes and rolling resistance coefficient

The fuel efficiency class shall be determined and illustrated on the tyre label on the basis of the rolling resistance coefficient (RRC in N/kN) according to the 'A' to 'E' scale specified in the table below and measured in accordance with Annex 6 to UNECE Regulation No 117 and aligned in accordance with the laboratory alignment procedure set out in Annex V.

If a tyre type belongs to more than one tyre class (e.g. C1 and C2), the grading scale used to determine the fuel efficiency class of that tyre type shall be that which is applicable to the highest tyre class (e.g. C2, not C1).

	<b>C1 tyres</b>	<b>C2 tyres</b>	<b>C3 tyres</b>
<b>Fuel efficiency class</b>	<b>RRC in N/kN</b>	<b>RRC in N/kN</b>	<b>RRC in N/kN</b>
A	$RRC \leq 6,5$	$RRC \leq 5,5$	$RRC \leq 4,0$
B	$6,6 \leq RRC \leq 7,7$	$5,6 \leq RRC \leq 6,7$	$4,1 \leq RRC \leq 5,0$
C	$7,8 \leq RRC \leq 9,0$	$6,8 \leq RRC \leq 8,0$	$5,1 \leq RRC \leq 6,0$
D	$9,1 \leq RRC \leq 10,5$	$8,1 \leq RRC \leq 9,0$	$6,1 \leq RRC \leq 7,0$
E	$RRC \geq 10,6$	$RRC \geq 9,1$	$RRC \geq 7,1$

#### Part B: Wet grip classes

1. The wet grip class shall be determined and illustrated on the tyre label on the basis of the wet grip index (G) according to the 'A' to 'E' scale specified in the table below, calculated in accordance with point 2 and measured in accordance with Annex 5 to UNECE Regulation No 117.

2. Calculation of wet grip index (G)

$$G = G(T) - 0,03$$

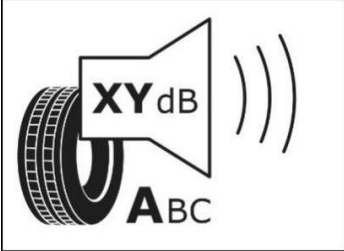

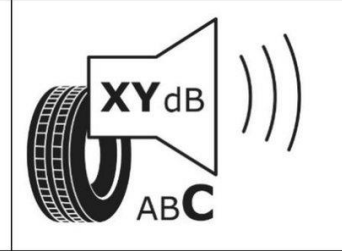
where; G(T) = wet grip index of the candidate tyre as measured in one test cycle

	<b>C1 tyres</b>	<b>C2 tyres</b>	<b>C3 tyres</b>
<b>Wet grip class</b>	<b>G</b>	<b>G</b>	<b>G</b>
A	$1,55 \leq G$	$1,40 \leq G$	$1,25 \leq G$
B	$1,40 \leq G \leq 1,54$	$1,25 \leq G \leq 1,39$	$1,10 \leq G \leq 1,24$
C	$1,25 \leq G \leq 1,39$	$1,10 \leq G \leq 1,24$	$0,95 \leq G \leq 1,09$
D	$1,10 \leq G \leq 1,24$	$0,95 \leq G \leq 1,09$	$0,80 \leq G \leq 0,94$
E	$G \leq 1,09$	$G \leq 0,94$	$G \leq 0,79$

#### Part C: External rolling noise classes and measured value

The external rolling noise measured value (N, in dB(A)) shall be declared in decibels and calculated in accordance with Annex 3 to UNECE Regulation No 117.

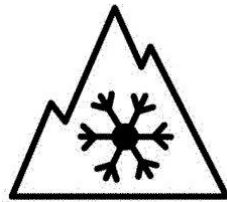
The external rolling noise class shall be determined and illustrated on the tyre label on the basis of the limit values (LV) set out in Part C of Annex II to Regulation on type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (661/2009/EU) as follows:

$N \leq LV - 3$	$LV - 3 < N \leq LV$	$N > LV$
		

**Part D: Snow grip**

The snow grip performance shall be tested in accordance with Annex 7 to UNECE Regulation No 117.

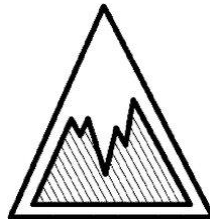
A tyre which satisfies the minimum snow grip index values set out in UNECE Regulation No 117 shall be classified as a tyre for use in severe snow conditions and the following pictogram shall be included on the tyre label.



**Part E: Ice grip**

The ice grip performance shall be tested in accordance with reliable, accurate and reproducible methods, including, where appropriate, international standards, which take into account the generally recognised state of the art.

The tyre label of a tyre which satisfies the relevant minimum ice grip index values shall include the following pictogram.



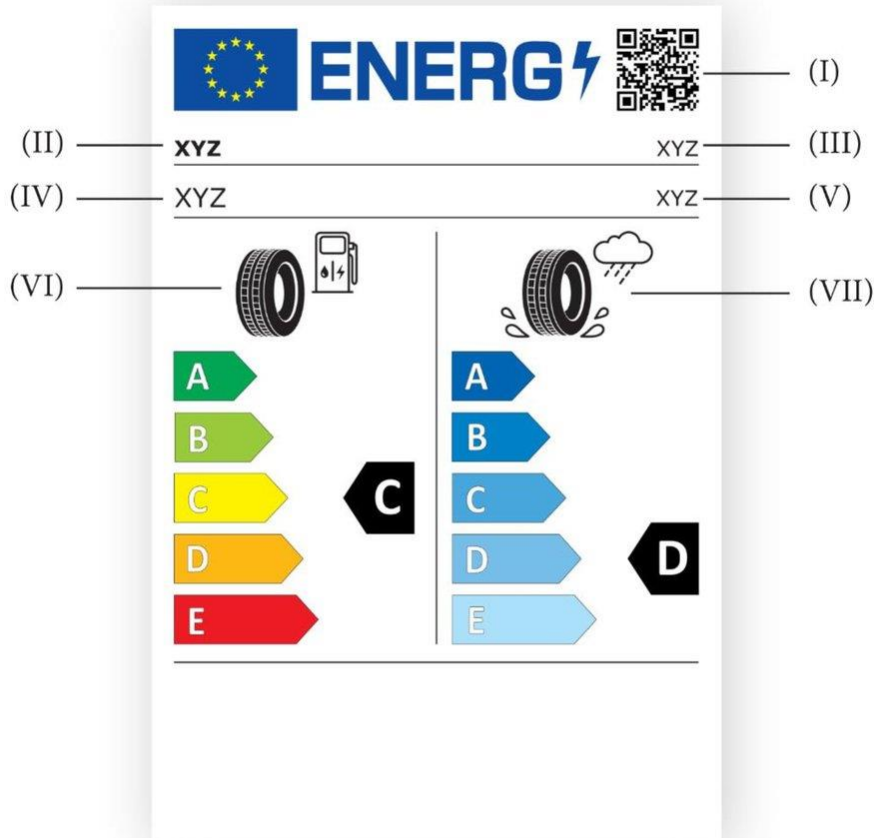


## ANNEX II

### CONTENT AND FORMAT OF THE TYRE LABEL

#### 1. Content of the tyre label

##### 1.1. Information to be included in the upper part of the tyre label:



I. QR code.

II. Trade name or trademark of the supplier.

III. Tyre type identifier.

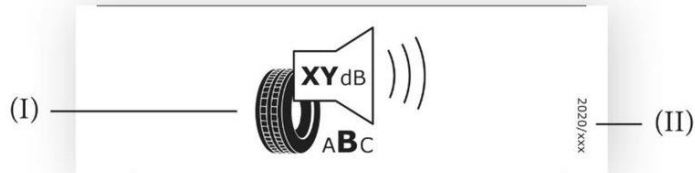
IV. Tyre size designation, load-capacity index and speed category symbol, as indicated in Regulation No 30 of the Economic Commission for Europe of the United Nations (UN/ECE) (1), in its most up-to-date version applicable to the Union, (UNECE Regulation No 30) and Regulation No 54 of the Economic Commission for Europe of the United Nations (UNECE) (2), in its most up-to-date version applicable to the Union, (UNECE Regulation No 54) for C1 tyres, C2 tyres and C3 tyres, as applicable.

V. Tyre class: i.e. C1, C2 or C3.

VI. Fuel efficiency pictogram, scale and performance class.

VII. Wet grip pictogram, scale and performance class.

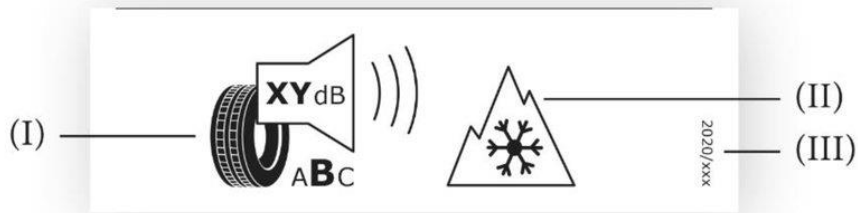
1.2. Information to be included in the bottom part of the tyre label for all tyres other than tyres which satisfy the minimum snow grip index values set out in UNECE Regulation No 117, or the relevant minimum ice grip index values, or both:



I. External rolling noise pictogram, value (expressed in dB(A) and rounded to the nearest integer) and performance class;

II. The serial number of EU Regulation harmonised by this Regulation: '2020/740'.

1.3. Information to be included in the bottom part of the tyre label for tyres which satisfy the minimum snow grip index values set out in UNECE Regulation No 117:

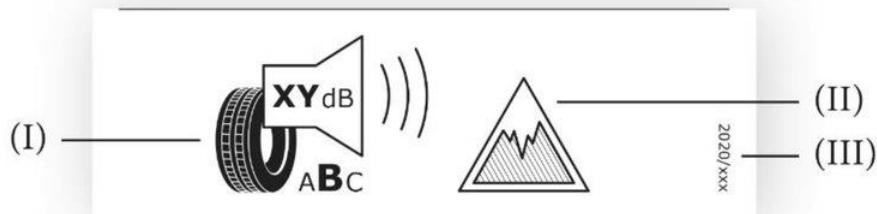


I. External rolling noise pictogram, value (expressed in dB(A) and rounded to the nearest integer) and performance class;

II. Snow grip pictogram;

III. The serial number of EU Regulation harmonised by this Regulation: '2020/740'.

1.4. Information to be included in the bottom part of the tyre label for tyres which satisfy the relevant minimum ice grip index values:

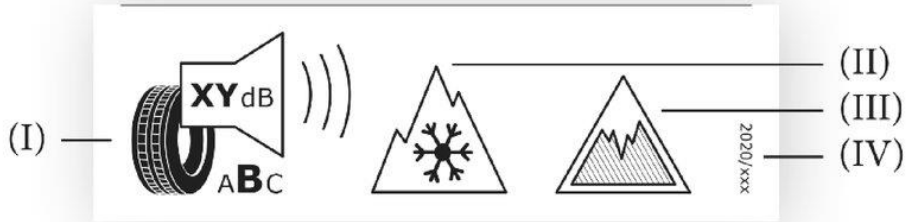


I. External rolling noise pictogram, value (expressed in dB(A) and rounded to the nearest integer) and performance class;

II. Ice grip pictogram;

III. The serial number of EU Regulation harmonised by this Regulation: '2020/740'.

1.5. Information to be included in the bottom part of the tyre label for tyres which satisfy both the relevant minimum snow grip index values set out in UNECE Regulation No 117 and the minimum ice grip index values:



I. External rolling noise pictogram, value (expressed in dB(A) and rounded to the nearest integer) and performance class;

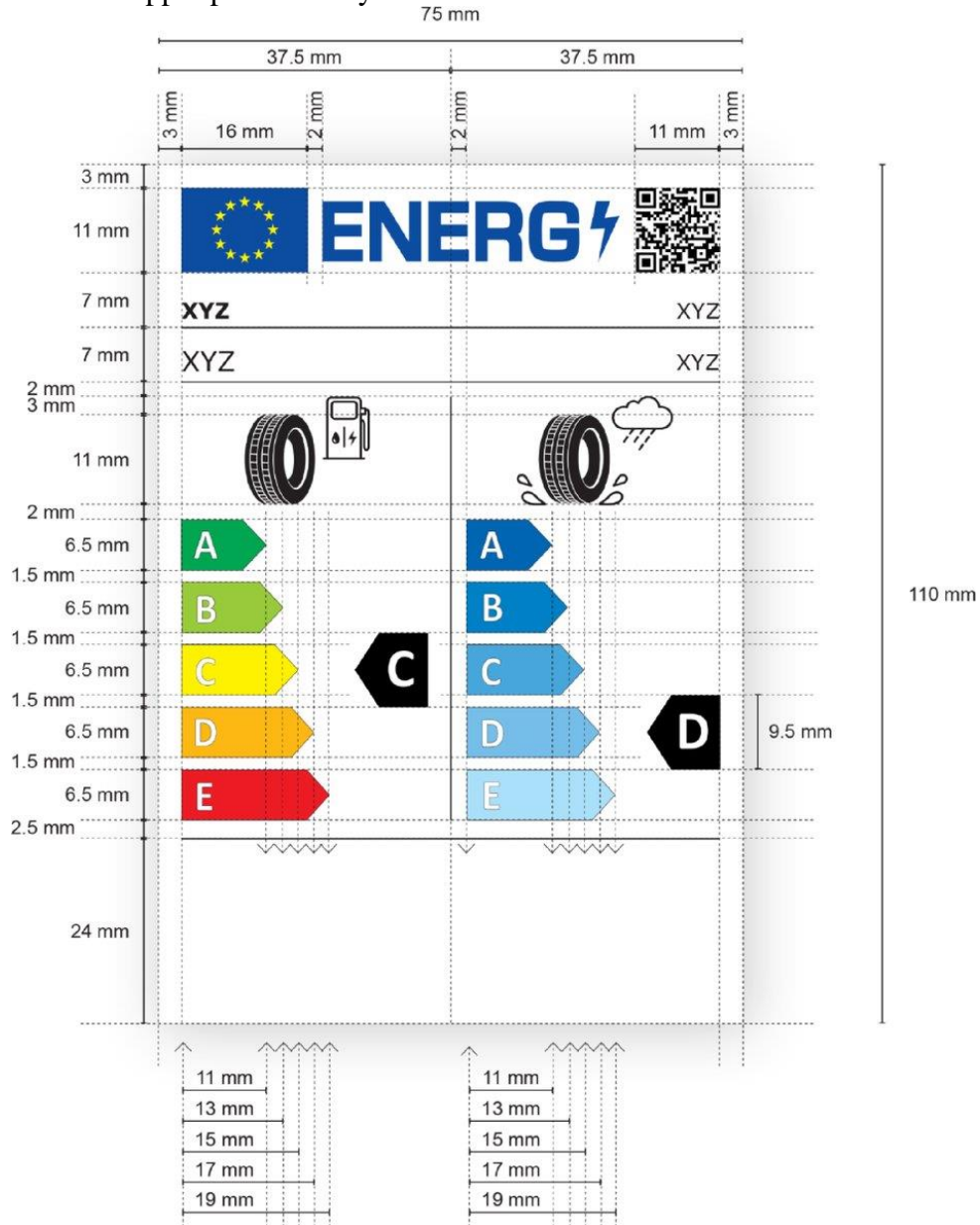
II. Snow grip pictogram;

III. Ice grip pictogram;

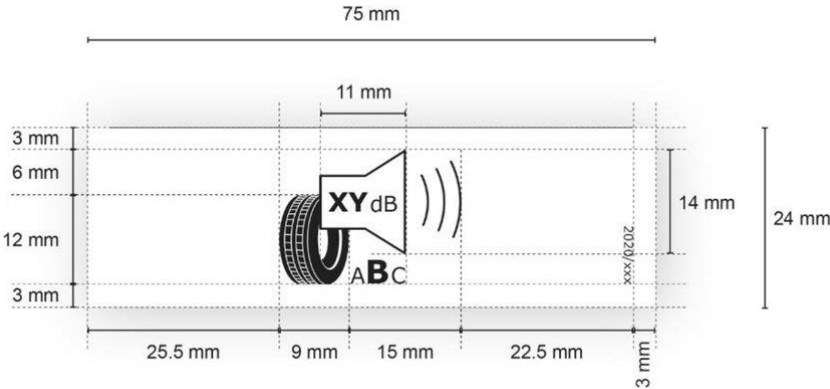
IV. The serial number of EU Regulation harmonised by this Regulation: '2020/740'.

## 2. Format of the tyre label

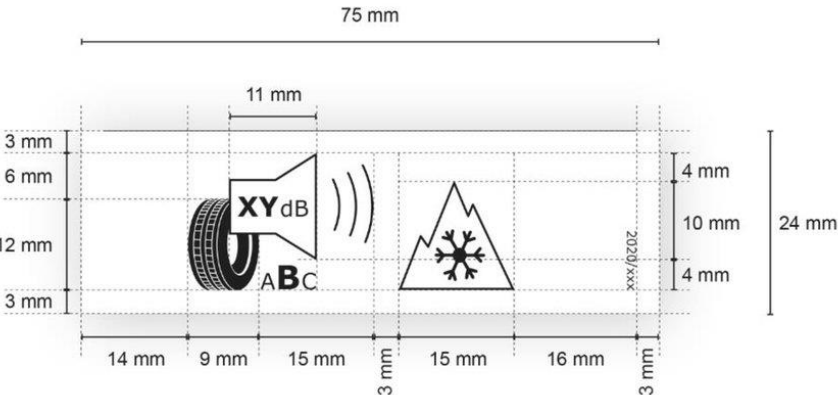
### 2.1. Format of the upper part of the tyre label:



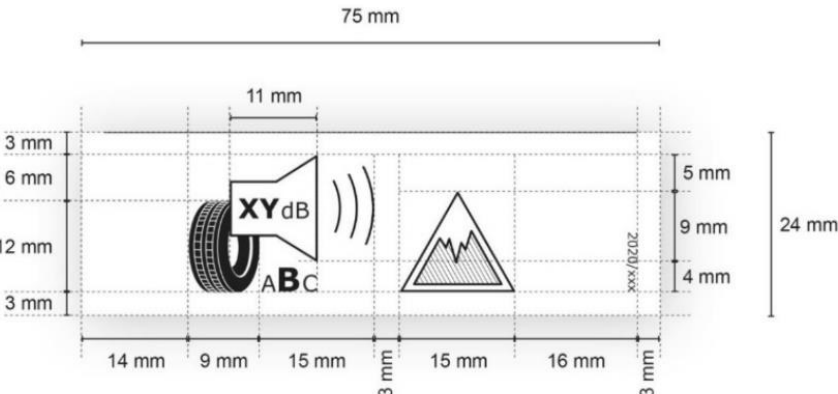
2.1.1. Format of the bottom part of the tyre label for all tyres other than tyres which satisfy the minimum snow grip index values set out in UNECE Regulation No 117, or the relevant minimum ice grip index values, or both:



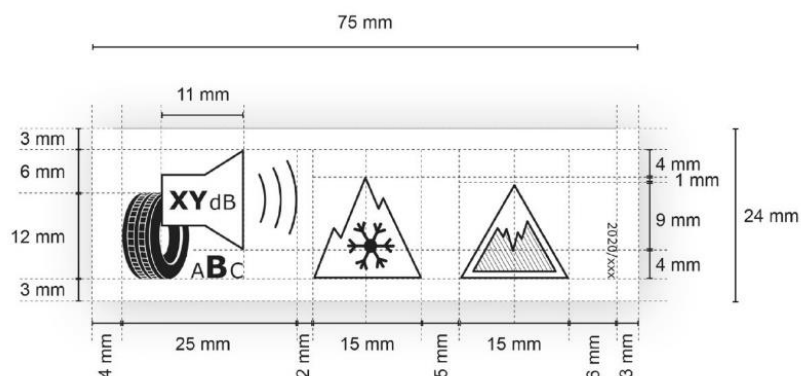
2.1.2. Format of the bottom part of the tyre label for tyres which satisfy the minimum snow grip index values set out in UNECE Regulation No 117:



2.1.3. Format of the bottom part of the tyre label for tyres which satisfy the minimum ice grip index values:



2.1.4. Format of the bottom part of the tyre label for tyres which satisfy both the relevant minimum snow grip index values set out in UNECE Regulation No 117 and the minimum ice grip index values:



2.2. For the purposes of point 2.1;

a) Tyre label minimal size: 75 mm wide and 110 mm high. Where the tyre label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above.

b) Background of the tyre label: 100 % white.

c) Typefaces: Verdana and Calibri.

ç) Dimensions and specifications of the elements constituting the tyre label: as specified above.

d) Colour codes, using CMYK – cyan, magenta, yellow and black, shall fulfil all the following requirements:

- colours of the EU logo as follows:

- background: 100,80,0,0.

- stars: 0,0,100,0.

- colour of the energy logo: 100,80,0,0.

- QR code: 100 % black.

- trade name or trademark of the supplier: 100 % black and in Verdana Bold 7 pt.

- tyre type identifier: 100 % black and in Verdana Regular 7 pt.

- tyre size designation, load-capacity index and speed category symbol: 100 % black and in Verdana Regular 10 pt.

- tyre class: 100 % black and in Verdana Regular 7 pt, aligned to the right.

- letters of the fuel efficiency scale and of the wet grip scale: 100 % white and in Calibri Bold 19 pt; the letters shall be centred on an axis at 4,5 mm from the left side of the arrows.

- CMYK colour codes of arrows for the A to E fuel efficiency scale as follows:

- A-class: 100,0,100,0.

- B-class: 45,0,100,0.

- C-class: 0,0,100,0.

- D-class: 0,30,100,0.

- E-class: 0,100,100,0.

- CMYK colour codes of arrows for the A to E wet grip scale as follows:

- A: 100,60,0,0.

- B: 90,40,0,0.

- C: 65,20,0,0.

- D: 50,10,0,0.

- E: 30,0,0,0.

- internal dividers: weight of 0,5 pts, colour shall be 100 % black.

- letter of the fuel efficiency class: 100 % white and in Calibri Bold 33 pt. Fuel efficiency and wet grip class arrows and the corresponding arrows in the A to E scale shall be positioned in such a way that their tips are aligned. The letter in the fuel efficiency class and in the wet grip class arrow shall be positioned in the centre of the rectangular part of the arrow which shall be 100 % black.

- fuel efficiency pictogram: width 16 mm, height 14 mm, weight 1 pts, colour: 100 % black.

- wet grip pictogram: width 20 mm, height 14 mm, weight 1 pts, colour: 100 % black.

- external rolling noise pictogram: width 24 mm, height 18 mm, weight 1 pts, colour: 100 % black. Number of decibels in the loudspeaker in Verdana Bold 12 pt, the unit 'dB' in Regular 9 pt; the range of external rolling noise classes (A to C) centred under the pictogram, with the letter of the applicable external rolling noise class in Verdana Bold 16 pt and the other letters of the external rolling noise classes in Verdana Regular 10 pt.
- snow grip pictogram: width 15 mm, height 13 mm, weight 1 pts, colour: 100 % black.
- ice grip pictogram: width 15 mm, height 13 mm, weight 1 pts, weight of oblique bars 0,5 pts, colour: 100 % black.
- the number of the EU Regulation harmonised by this Regulation EU/2020/740 shall be 100 % black and in Verdana Regular 6 pt.

## **ANNEX III**

### **PRODUCT INFORMATION SHEET**

The information in the product information sheet of tyres shall be included in the product brochure or other literature provided with the tyre and shall include the following:

- a) the trade name or trademark of the supplier or of the manufacturer if it is not the same as that of the supplier,
- b) the tyre type identifier.
- c) the tyre size designation, load-capacity index and speed category symbol, as indicated in UNECE Regulation No 30 or in UNECE Regulation No 54 for C1 tyres, C2 tyres and C3 tyres, as applicable.
- ç) the fuel efficiency class of the tyre in accordance with Annex I.
- d) the wet grip class of the tyre in accordance with Annex I.
- e) the external rolling noise class and value in decibels in accordance with Annex I.
- f) an indication of whether the tyre is a tyre for use in severe snow conditions.
- g) an indication of whether the tyre is an ice grip tyre.
- ğ) the date of start of production of the tyre type (two digits for the week and two digits for the year)
- h) the date of end of production of the tyre type, once known (two digits for the week and two digits for the year).

## ANNEX IV

### INFORMATION PROVIDED IN TECHNICAL PROMOTIONAL MATERIAL

1. Information on tyres included in technical promotional material shall be provided in the following order:
  - a) the fuel efficiency class (letter 'A' to 'E')
  - b) the wet grip class (letter 'A' to 'E')
  - c) the external rolling noise class and measured value in dB.
  - ç) an indication of whether the tyre is a tyre for use in severe snow conditions.
  - d) an indication of whether the tyre is an ice grip tyre.
2. The information referred to in point 1 shall meet the following requirements:
  - a) it shall be easy to read.
  - b) it shall be easy to understand.
  - c) if within a tyre family tyre types are classified differently depending on dimension or other characteristics, the range between the lowest performing and highest performing tyre types shall be stated.
3. Suppliers shall also make the following available on their websites:
  - a) if applicable, a link to the relevant Commission webpage dedicated to this Regulation.
  - b) an explanation of the pictograms printed on the tyre label.
  - c) a statement highlighting the fact that actual fuel savings and road safety depend heavily on the behaviour of drivers, and in particular on the following:
    - eco-driving can significantly reduce fuel consumption.
    - tyre pressure needs to be regularly checked to optimise fuel efficiency and wet grip.
    - stopping distances must always be respected.
4. Suppliers and distributors shall also, where relevant, make available on their websites a statement highlighting the fact that ice grip tyres are specifically designed for road surfaces covered with ice and compact snow, and should only be used in very severe climate conditions (e.g. cold temperatures) and that using ice grip tyres in less severe climate conditions (e.g. wet conditions or warmer temperatures) could result in sub-optimal performance, in particular for wet grip, handling and wear.



## ANNEX V

### LABORATORY ALIGNMENT PROCEDURE FOR THE MEASUREMENT OF ROLLING RESISTANCE

#### 1. Definitions

For the purposes of the laboratory alignment procedure for the measurement of rolling resistance, the following definitions apply:

- 1) 'reference laboratory' means a laboratory that is part of the network of laboratories, the names of which have been published in the Official Journal of the European Union for the purpose of the laboratory alignment procedure, and that is able to achieve the accuracy of test results determined in Section 3 with its reference machine.
- 2) 'candidate laboratory' means a laboratory participating in the laboratory alignment procedure that is not a reference laboratory.
- 3) 'alignment tyre' means a tyre that is tested for the purpose of performing the laboratory alignment procedure.
- 4) 'alignment tyre set' means a set of five or more alignment tyres for the alignment of one single machine.
- 5) 'assigned value' means a theoretical value of the rolling resistance coefficient (RRC) of one alignment tyre as measured by a theoretical laboratory which is representative of the network of reference laboratories that is used for the laboratory alignment procedure.
- 6) 'machine' means every tyre testing spindle in one specific measurement method; for example, two spindles acting on the same drum shall not be considered as one machine.

#### 2. General provisions

##### 2.1. Principle

The measured ( $m$ ) rolling resistance coefficient obtained in a reference laboratory ( $l$ ), ( $RRC_{m,l}$ ), shall be aligned to the assigned values of the network of reference laboratories. The measured ( $m$ ) rolling resistance coefficient obtained by a machine in a candidate laboratory ( $c$ ), ( $RRC_{m,c}$ ), shall be aligned through one reference laboratory of the network of its choice.

##### 2.2. Tyre selection requirements

Alignment tyre sets shall be selected for the laboratory alignment procedure in accordance with the following criteria. One alignment tyre set shall be selected for C1 tyres and C2 tyres together, and one set for C3 tyres:

a) the alignment tyre set shall be selected so as to cover the range of different RRCs of C1 tyres and C2 tyres together, or of C3 tyres; in any event, the difference between the highest  $RRC_m$  of the alignment tyre set, and the lowest  $RRC_m$  of the alignment tyre set shall be, before and after alignment, at least equal to:

- (i) 3 N/kN for C1 tyres and C2 tyres; and
- (ii) 2 N/kN for C3 tyres;

b) the  $RRC_m$  in the candidate or reference laboratories ( $RRC_{m,c}$  or  $RRC_{m,l}$ ) based on declared  $RRC$  values of each alignment tyre of the alignment tyre set shall be distributed evenly.

c) load index values shall adequately cover the range of the tyres to be tested, ensuring that the rolling resistance values also cover the range of the tyres to be tested. Each alignment tyre shall be checked prior to use and shall be replaced when:

- (i) the alignment tyre shows a condition which makes it unusable for further tests; or
- (ii) there are deviations of  $RRC_{m,c}$  or  $RRC_{m,l}$  greater than 1,5 % relative to earlier measurements after correction for any machine drift.

### 2.3. Measurement method

The reference laboratory shall measure each alignment tyre four times and retain the three last results for further analysis, in accordance with paragraph 4 of Annex 6 to UNECE Regulation No 117 and under the conditions set out in paragraph 3 of Annex 6 to UNECE Regulation No 117.

The candidate laboratory shall measure each alignment tyre ( $n + 1$ ) times, with  $n$  being specified in Section 5 of this Annex and retain the  $n$  last results for further analysis, in accordance with paragraph 4 of Annex 6 to UNECE Regulation No 117 and applying the conditions set out in paragraph 3 of Annex 6 to UNECE Regulation No 117.

Each time an alignment tyre is measured, the tyre/wheel assembly shall be removed from the machine and the entire test procedure referred to in paragraph 4 of Annex 6 to UNECE Regulation No 117 shall be followed again from the start.

The candidate or reference laboratory shall calculate:

- a) the measured value of each alignment tyre for each measurement as specified in paragraphs 6.2 and 6.3 of Annex 6 to UNECE Regulation No 117 (i.e. corrected for a temperature of 25 °C and a drum diameter of 2 m)
- b) the mean value of the three last measured values of each alignment tyre (in the case of reference laboratories) or the mean value of the  $n$  last measured values of each alignment tyre (in the case of candidate laboratories); and
- c) the standard deviation ( $\sigma_m$ ) as follows:

$$\sigma_m = \sqrt{\frac{1}{p} \cdot \sum_{i=1}^p \sigma_{m,i}^2}$$

$$\sigma_{m,i} = \sqrt{\frac{1}{n-1} \cdot \sum_{j=2}^{n+1} \left( Cr_{i,j} - \frac{1}{n} \cdot \sum_{j=2}^{n+1} Cr_{i,j} \right)^2}$$

where:

$i$ , is the counter from 1 to  $p$  for the alignment tyres.

$j$ , is the counter from 2 to  $n + 1$  for the  $n$  last repetitions of each measurement of a given alignment tyre.

$n+1$ , is the number of repetitions of tyre measurements ( $n + 1 = 4$  for reference laboratories and  $n + 1 \geq 4$  for candidate laboratories).

p, is the number of alignment tyres ( $p \geq 5$ ).

#### 2.4. Data formats to be used for the computations and results

The measured RRC values corrected from drum diameter and temperature shall be rounded to two decimal places: Then the computations shall be made with all digits: there shall be no further rounding except on the final alignment equations. All standard deviation values shall be displayed to three decimal places. All RRC values will be displayed to two decimal places. All alignment coefficients ( $A1_1$ ,  $B1_1$ ,  $A2_c$  and  $B2_c$ ) shall be rounded and displayed to four decimal places.

### 3. Requirements applicable to the reference laboratories and determination of the assigned values

The assigned values of each alignment tyre shall be determined by a network of reference laboratories. Every second year the network shall assess the stability and validity of the assigned values. Each reference laboratory participating in the network shall comply with the specifications of Annex 6 to UNECE Regulation No 117 and have a standard deviation ( $\sigma_m$ ) as follows:

- a) not greater than 0,05 N/kN for C1 tyres and C2 tyres; and
- b) not greater than 0,05 N/kN for C3 tyres.

The alignment tyre sets that have been selected in accordance with Section 2.2 shall be measured in accordance with Section 2.3 by each reference laboratory of the network. The assigned value of each alignment tyre is the average of the measured values given by the reference laboratories of the network for this alignment tyre.

### 4. Procedure for the alignment of a reference laboratory to the assigned values

Each reference laboratory (l) shall align itself to each new set of assigned values and always after any significant machine change or any drift in machine control tyre monitoring data. The alignment shall use a linear regression technique on all individual data. The regression coefficients,  $A1_1$  and  $B1_1$ , shall be calculated as follows:

$$RRC = A1_1 \times RRC_{m,l} + B1_1$$

where:

$RRC_1$ , is the assigned value of the rolling resistance coefficient.

$RRC_{m,l}$ , is the individual measured value of the rolling resistance coefficient by the reference laboratory 'l' (including temperature and drum diameter corrections).

### 5. Requirements applicable to candidate laboratories

Candidate laboratories shall repeat the alignment procedure at least once every second year for every machine and always after any significant machine change or any drift in machine control tyre monitoring data.

A common set of five different tyres that have been selected in accordance with Section 2.2 shall be measured in accordance with Section 2.3 first by the candidate laboratory and then by one reference laboratory. More than five alignment tyres may be tested at the request of the candidate laboratory.

The candidate laboratory shall provide the alignment tyre set to the selected reference laboratory.

The candidate laboratory (c) shall comply with the specifications of Annex 6 to UNECE Regulation No 117 and preferably have standard deviations ( $\sigma_m$ ) as follows:

- a) not greater than 0,075 N/kN for C1 tyres and C2 tyres; and
- b) not greater than 0,06 N/kN for C3 tyres.

If the standard deviation ( $\sigma_m$ ) of the candidate laboratory is higher than those values after four measurements, the last three being used for the computations, then the number  $n + 1$  of measurement repetitions shall be increased as follows for the entire batch:

$$n+1 = 1+(\sigma_m/\gamma)^2, \text{ rounded up to the nearest higher integer value.}$$

where:

$\gamma = 0,043$  N/kN for C1 tyres and C2 tyres.

$\gamma = 0,035$  N/kN for C3 tyres.

## **6. Procedure for the alignment of a candidate laboratory**

One reference laboratory (l) of the network shall calculate the linear regression function on all individual data of the candidate laboratory (c). The regression coefficients,  $A2_c$  and  $B2_c$ , shall be calculated as follows:

$$RRC_{m,l} = A2_c \times RRC_{m,c} + B2_c$$

where:

$RRC_{m,l}$ , is the individual measured value of the rolling resistance coefficient by the reference laboratory (l) (including temperature and drum diameter corrections).

$RRC_{m,c}$ , is the individual measured value of the rolling resistance coefficient by the candidate laboratory (c) (including temperature and drum diameter corrections).

If the coefficient of determination  $R^2$  is lower than 0,97, the candidate laboratory shall not be aligned.

The aligned RRC of tyres tested by the candidate laboratory shall be calculated as follows:

$$RRC = (A1_l \times A2_c) \times RRC_{m,c} + (A1_l \times B2_c + B1_l)$$

## ANNEX VI

### VERIFICATION PROCEDURE

The conformity with this Regulation of the declared fuel efficiency, wet grip and external rolling noise classes, as well as the declared values, and any additional performance information on the tyre label, shall be assessed for each tyre type or each grouping of tyres as determined by the supplier, according to one of the following procedures:

1. A single tyre or tyre set is tested first. If the measured values meet the declared classes or the declared external rolling noise value within the verification tolerances referred to in the table below, the tyre label shall be considered to comply with this Regulation.
2. If the measured values do not meet the declared classes or the declared external rolling noise value within the verification tolerances referred to in the table below, three additional tyres or tyre sets are to be tested; the average measurement value stemming from the three additional tyres or tyre sets tested is to be used to verify the declared information, taking into account the verification tolerances referred to in the table below.
3. Where the classes or values on the tyre label are derived from type-approval test results obtained in accordance with Regulation on type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (661/2009/EU) or UNECE Regulation No 117, Ministry may use measurement data obtained from the conformity of production tests on tyres that were carried out under the type-approval procedure established by Regulation on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles published in the Official Gazette No. 31104 dated 19/04/2020 (EU/2018/858). Assessments of the measurement data obtained from the conformity of production tests shall take into account the verification tolerances referred to in the table below.

<b>Measured parameter</b>	<b>Verification tolerances</b>
RRC (fuel efficiency)	The aligned measured value shall not be greater than the upper limit (the highest RRC) of the declared class by more than 0,3 N/kN.
External rolling noise	The measured value shall not be greater than the declared value of <i>N</i> by more than 1 dB(A).
Wet grip	The measured value <i>G(T)</i> shall not be lower than the lower limit (the lowest value of <i>G</i> ) of the declared class.
Snow grip	The measured value shall not be lower than the minimum snow grip index.
Ice grip	The measured value shall not be lower than the minimum ice grip index.

## **ANNEX VII**

### **INFORMATION TO BE ENTERED INTO THE PRODUCT DATABASE OR SUPPLIERS' WEBSITES**

1. Information to be entered into the public part of the product database or suppliers' websites:
  - a) the trade name or trademark, address, contact details and other legal identification of the supplier.
  - b) the tyre type identifier.
  - c) the tyre label in electronic format.
  - ç) the class(es) and other parameters of the tyre label; and
  - d) the parameters of the product information sheet in electronic format.
  
2. Information that suppliers shall provide to the Ministry upon its request in order to ensure the implementation of this Regulation:
  - a) the tyre type identifier of all equivalent tyre types that are already placed on the market.
  - b) a general description of the tyre type, including its dimensions, load index and speed rating, sufficient for it to be unequivocally and easily identified.
  - c) protocols of the testing, grading and measurement of the tyre parameters set out in Annex I.
  - ç) specific precautions, if any, that shall be taken when the tyre type is assembled, installed, maintained or tested.
  - d) the measured technical parameters of the tyre type, where relevant; and
  - e) the calculations performed with the measured technical parameters.