

## Proposal for amendments to UN Regulation No. 152

The following text is submitted as a proposal for Supplement 4 to the original text of UN R152, Supplement 3 to UN R152.01 and Supplement 1 to UN R152.02

### I. Proposal

*Paragraph 2.12.*, amend to read:

“2.12. "Dry road" means a road with a nominal peak braking coefficient of ~~0.9~~ **as specified in paragraph 6.1.1.1.**

*Paragraph 6.1.1.1.*, amend to read (Footnote 3 unchanged, preceding paragraphs are cited for best reference)

### 6. Test procedure

“6.1. Test Conditions

6.1.1. The test shall be performed on a flat, dry concrete or asphalt surface affording good adhesion.

6.1.1.1. The road test surface shall have a **consistent slope between level and 1 per cent and have a** nominal<sup>3</sup> peak braking coefficient (PBC) of ~~0.9, unless otherwise specified, when measured using either:~~

**(a) 0.9 unless otherwise specified, when measured using the American Society for Testing and Materials (ASTM) of E1136 standard reference test tyre in accordance with ASTM Method E1337 90 at a speed of 40 mph;**

**(b) 1.017 unless otherwise specified, when measured using either:**

**a) The American Society for Testing and Materials (ASTM) of F2493 standard reference test tyre in accordance with ASTM Method E1337-90 at a speed of 40 mph; or**

**b) The k-test method specified in Appendix 2 to Annex 6 of Regulation No. 13-H.**

*Paragraphs 6.1.1.2. to 6.1.1.4.*, shall be delete

~~“6.1.1.2. The American Society for Testing and Materials (ASTM) E1136 standard reference test tyre, in accordance with ASTM Method E1337 90, at a speed of 40 mph; or~~

~~6.1.1.3. The k test method specified in Appendix 2 to Annex 6 of Regulation No. 13 H.~~

~~6.1.1.4. The test surface has a consistent slope between level and 1 per cent.”~~

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<sup>3</sup> The "nominal" value is understood as being the theoretical target value.

## II. Justifications

1. The evolution of technology over the last years made the tyre/road friction coefficient progress. The regulation should reflect this progress.
  2. In this regard, the ASTM standard tyre evolved as well, turning from tyre E1136 (P195/75R14) to tyre F2493 (P225/60R16 97S). This new tyre indeed better mirrors the state of the art of the tyres.
  3. The tests performed by some Technical Services showed that a PBC of 0.9 with the “old” ASTM standard tyre corresponds to the PBC of 1.017 with the new one.
  4. It is then reasonable to amend the regulation for both the ASTM test method and the K-test method. This is of particular importance in the case of UN R152 where the performance of the system widely depends on the level of adhesion of the test surface.
  5. The proposal for amendment to the definition of “dry road” can alternatively be:

“2.12. *"Dry road"* means a road with a nominal peak braking coefficient ~~of 0.9~~ **that permits a mean fully developed deceleration of 9m/s<sup>2</sup>.**”
  6. A separate presentation provides further explanations to the proposal.
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