International Standard

ISO 5273

Passenger car tyres — Preparation method for an artificially worn state for wet grip testing

Pneus pour voitures particulières — Méthode de préparation d'une usure artificielle pour les essais d'adhérence sur revêtement mouillé

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Foreword

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This document was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 3, *Passenger car tyres and rims*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at: www.iso.org/members.html.

Passenger car tyres — Preparation method for an artificially worn state for wet grip testing

1 Scope

This document specifies the preparation of artificially worn tyres by tread rubber removal (e.g. cutter, buffing, grinding, etc.) for subsequent wet grip performance tests. This document applies to new passenger car tyres.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4000-1, *Passenger car tyres and rims — Part 1: Tyres (metric series)*

ISO 4223-1, *Definitions of some terms used in the tyre industry — Part 1: Pneumatic tyres*

ISO 21920-2, *Geometrical product specifications (GPS) — Surface texture: Profile — Part 2: Terms, definitions and surface texture parameters*

ASTM F421, *Standard Test Method for Measuring Groove and Void Depth in Passenger Car Tires*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4000-1, ISO 4223-1, ISO 21920-2, ASTM F421, and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
tyre contour
geometrical shape of tyre shoulder and tread

Note 1 to entry: An example of tyre contour is shown in Figure 1.

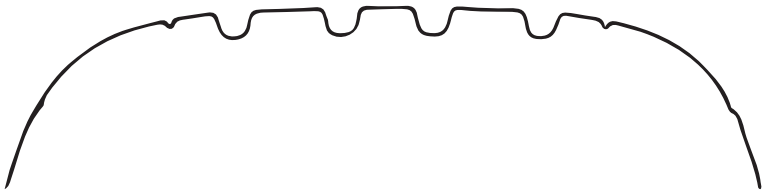

Figure 1 — Tyre contour

Note 2 to entry: Tyre contour should be obtained, e.g. by scan method.

3.2
groove
void volume between two adjacent ribs or blocks in the tread pattern

3.3
groove depth
vertical distance between the lowest point at bottom of tread pattern and tangent line of tyre surface

3.4
centre line
line dividing the overall width of the tyre in two equal parts

3.5
mould parting line
border circumference in which mould tread pattern segments connects with mould sidewall plates

Note 1 to entry: If no mould parting line is visible on the tyre, a virtual mould parting line shall be considered as the circumferential line in the equivalent position at the end of the shoulder grooves.

3.6
reference tread width
C
tyre tread width as calculated by:

$$C = (1{,}075 - 0{,}005\,ar)\,s^{1{,}001}$$

where:

ar is the nominal aspect ratio;

s is the nominal section width on measuring rim.

Note 1 to entry: Reference tread width is as shown in Figure 2.

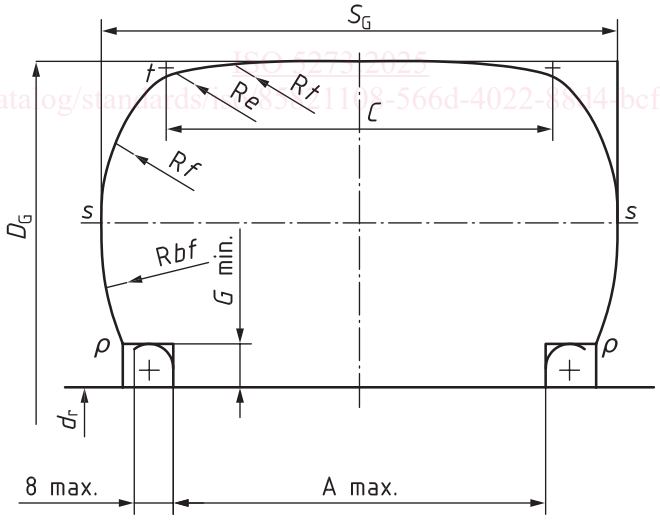

Figure 2 — Reference tread width (C)

3.7
central part of the tread
CP
75 % of reference tread width in the central tread, symmetrically measured from the centre line