

**BUREAU OF INDIAN STANDARDS**

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भारतीय मानक मसौदा

सवारी कार, ट्रक, एवं बस, टायर- रोलिंग प्रतिरोधिता मापन पद्धति- मापन परिणामों के एकल बिंदु परीक्षण एवं सहसंबंध

**PASSENGER CAR, TRUCK AND BUS TYRE ROLLING RESISTANCE MEASUREMENT METHOD —  
SINGLE POINT TEST AND CORRELATION OF MEASUREMENT RESULTS**

ICS: 83.160.01

Automotive Tyres, Tubes And Rims Sectional  
Committee, TED 07

Last Date for Comments: **13.12.2024**

## NATIONAL FOREWORD

**(Formal clauses will be added later)**

This standard was originally published in 2015 which was identical with ISO 28580: 2009. This first revision of this standard was undertaken to align it with the latest version of the ISO 28580: 2018.

The main changes compared to the previous edition are as follows:

- a) Incorporation of clarifications and additional detail, for example those identified in ISO/TR 16377;
- b) Expansion of the concept of reference machine to include two possible types, a physical reference or a virtual reference;
- c) Allowance for alignment to be carried out based on a set of two or more alignment tyres as defined by the authorizing body;
- d) Ability to reduce the warm-up duration of larger truck and bus tyres under certain conditions;
- e) Alignment improvement through the use of four measures of each alignment tyre, using only the last three measures for computations; and
- f) Additional information concerning machine drift evaluation.

The text of ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which is to be substituted in their respective places, is listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standards</i>	<i>Degree of Equivalence</i>
ISO 17025  General requirements for the competence of testing and calibration laboratories	IS/ISO/IEC 17025 : 2017  General requirements for the competence of testing and calibration laboratories ( <i>Second Revision</i> )	Identical under single numbering

The technical committee has reviewed the provisions of following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

<i>International Standards</i>	<i>Title</i>
ISO 4000-1: 2015	Passenger car tyres and rims — Part 1: Tyres
ISO 4209-1: 2001	Truck and bus tyres and rims (metric series) — Part 1: Tyres
ISO 4223-1: 2017	Definitions of some terms used in the tyre industry — Part 1: Pneumatic tyres
ISO 8855: 2011	Road vehicles — Vehicle dynamics and road-holding ability — Vocabulary

This standard (IS/ISO 28580) is to be used for lab testing, alignment exercise and other purpose. It should not be used for regulatory compliance until notified by the authorised agency.

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. The Bureau of Indian Standards shall not be held responsible for identifying any or all such patent rights.

Annex A, B, C, D, E, Annex F forms **informative/normative** part of this standard.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off it shall be done in accordance with IS 2: 2022 'Rules for rounding off numerical values (*Second Revision*)'.

## **SCOPE**

This document specifies methods for measuring rolling resistance, under controlled laboratory conditions, for new pneumatic tyres designed primarily for use on passenger cars, trucks and buses. This document is not applicable to tyres intended for temporary use only. It includes a method for correlating measurement results to allow inter-laboratory comparisons. It is designed to facilitate international cooperation and, possibly, regulation building.

Measurement of tyres using this method enables comparisons to be made between the rolling resistance of new test tyres when they are free-rolling straight ahead, in a position perpendicular to the drum outer surface, and in steady-state conditions.

**FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 28580: 2018 or CONTACT:**

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