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**Laboratory Test Methods for Passenger Car Tyres**  
**Capabilities**

**轿车轮胎性能室内试验方法**

*(ISO 10191: 2021, Passenger car tyres - verifying tyre capabilities- laboratory test methods, MOD)*

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# Laboratory Test Methods for Passenger Car Tyres Capabilities

## 1 SCOPE

This document describes the laboratory test methods for verifying the capabilities of tyres for passenger cars, including test equipment and accuracy, test conditions, test procedures, judgment rules, and test report.

This document covers the bead unseating test, strength performance test, high-speed performance test, endurance performance test, and low-pressure performance test. Of the test methods presented, it is possible that only some will be required depending on the type of tyre to be tested (tube or tubeless, diagonal or radial, etc.).

The test methods presented in this document are not intended for gradation of tyre performance or quality levels.

This document applies to both new and retreaded pneumatic tyres for passenger cars; subject to the agreement of interested parties, other tyres can be tested by reference to this document.

## 2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

GB/T 6326 Tyre terms and definitions (GB/T 6326-2014, ISO 4223-1:2002, NEQ)

GB/T 8170 Rules of rounding off for numerical values & expression and judgement of limiting values

## 3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions given in GB/T 6326 and the following apply.

### 3.1

parasitic tread block chunking (PTBC)

breaking away of pieces, or tearing, of rubber within a tread block without exposing tyre's reinforcing material, e.g., carcass ply, belt, etc.

Note: PTBC is an artefact that occurs to a tyre during drum testing, and does not occur in real-world road operation. It generally occurs in the test of tyres with soft tread compounds or complex tread patterns, e.g., many sipes.

## 4 TEST EQUIPMENT AND ACCURACY

### 4.1 Bead Unseating Tester

4.1.1 The basic structure and main positions and dimensions of the tester are shown in Figure 1.



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