

This is a preview of "ISO 10191:2021". [Click here to purchase the full version from the ANSI store.](#)

Fourth edition
2021-08

Passenger car tyres — Verifying tyre capabilities — Laboratory test methods

*Pneumatiques pour voitures particulières — Vérification de l'aptitude
des pneumatiques — Méthodes d'essai en laboratoire*



Reference number
ISO 10191:2021(E)

© ISO 2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

This is a preview of "ISO 10191:2021". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Test equipment and conditions	3
5 Testing of tyres with diagonal or bias-belted structure and of T-type temporary-use spare tyres	4
5.1 Endurance test.....	4
5.1.1 Preparation of tyre.....	4
5.1.2 Test procedure.....	4
5.2 High-speed test.....	5
5.2.1 General.....	5
5.2.2 Preparation of tyre.....	5
5.2.3 Test method.....	5
5.3 Strength test.....	6
5.4 Bead unseating test (of tubeless tyres).....	6
6 Requirements for tyres with diagonal or bias-belted structure and for T-type temporary-use spare tyres	6
6.1 Test sample.....	6
6.2 Endurance test.....	7
6.3 High-speed test.....	7
6.4 Strength test.....	7
6.5 Bead unseating test (of tubeless tyres).....	8
7 Testing of radial tyres	8
7.1 Endurance test and low-pressure performance test.....	8
7.1.1 Preparation of tyre.....	8
7.1.2 Test procedure for endurance test.....	8
7.1.3 Preparation of tyre for low-pressure performance test.....	9
7.2 High-speed test.....	10
7.2.1 General.....	10
7.2.2 Preparation of tyre.....	10
7.2.3 Test method for tyres with speed symbols F, G, J, K, L, M, N, P, Q, R or S.....	10
7.2.4 Test method for tyres with speed symbols T, U, H, V, W or Y.....	11
7.2.5 Test method for tyres with the code letters ZR in the size designation and both the load index and the speed symbol Y placed within parentheses intended for use at speeds greater than 300 km/h.....	12
8 Requirements for radial tyres	12
8.1 Test sample.....	12
8.2 Endurance test and low-pressure performance test.....	12
8.3 High-speed test.....	13
Annex A (informative) High-speed test — Test conditions for tyres without service description marking	14
Bibliography	16

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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

This fourth edition cancels and replaces the third edition (ISO 10191:2010), which has been technically revised. The main changes compared with the previous edition are as follows:

- separation of test methods and requirements for radial tyres and diagonal tyres, bias-belted tyres and T-type temporary spare tyres;
- replace the descriptions of strength test and bead unseating test by reference to the corresponding ASTM standards;
- align endurance test and high-speed test for radial tyres with UN GTR No. 16^[1];
- allow PTFE coating of drums for endurance test;
- reduce conditioning time for high-speed test;
- allow drum acceleration in steps;
- editorial changes to improve consistency of the text and align with terms defined in ISO 4223-1:2017.

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.