
Passenger car tyres — Verifying tyre capabilities — Laboratory test methods

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



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Test equipment	2
5 Testing	3
5.1 Strength test	3
5.2 Bead unseating test	5
5.3 Endurance test	7
5.4 High speed test	7
6 Requirements	9
6.1 Test sample	9
6.2 Strength test	9
6.3 Bead unseating resistance (tubeless tyres)	10
6.4 Endurance test	11
6.5 High-speed test	11
Annex A (informative) High-speed test — Test conditions for tyres without service description marking	12
Bibliography	14

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 10191 was prepared by Technical Committee ISO/TC 31, *Tyres, rims and valves*, Subcommittee SC 3, *Passenger car tyres and rims*.

This third edition cancels and replaces the second edition (ISO 10191:1995 and also ISO 10191:1995/Amd.1:1998), of which it constitutes a minor revision.

Passenger car tyres — Verifying tyre capabilities — Laboratory test methods

1 Scope

This International Standard specifies test methods for verifying the capabilities of tyres for passenger cars. Of the test methods presented, it is possible that only some will be required depending on the type of tyre to be tested. The tests are carried out in a laboratory under controlled conditions.

This International Standard includes a strength test for assessing the capability of the tyre structure, with respect to braking energy, in the tread area.

A second test, the bead unseating test, assesses the resistance of the tyre to bead unseating. It applies to tubeless tyres only.

A third test, the endurance test, assesses the resistance of the tyre with respect to service at full load and moderate speed over long distances.

The fourth test, the high speed test, assesses the capability of the tyre according to its speed category.

The test methods presented in this International Standard are not intended for gradation of tyre performance or quality levels. This International Standard applies to all passenger car tyres.

2 Normative references

The following referenced documents are indispensable for the application 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 4223-1:2002, *Definitions of some terms used in the tyre industry* — Part 1: Pneumatic tyres

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4223-1 and the following apply.

3.1

bead separation

breakdown of bond between components in the bead area

3.2

belt separation

parting of rubber compound between belt layers or between belts and plies

3.3

chunking

breaking away of pieces of the tread