

This is a preview of "ISO 7619-2:2010". [Click here to purchase the full version from the ANSI store.](#)

Second edition
2010-10-01

Rubber, vulcanized or thermoplastic — Determination of indentation hardness —

Part 2: IRHD pocket meter method

*Caoutchouc vulcanisé ou thermoplastique — Détermination de la dureté
par pénétration —*

Partie 2: Méthode au duromètre de poche étalonné en DIDC



Reference number
ISO 7619-2:2010(E)

© ISO 2010

This is a preview of "ISO 7619-2:2010". [Click here to purchase the full version from the ANSI store.](#)

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.



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

This is a preview of "ISO 7619-2:2010". Click [here](#) to purchase the full version from the ANSI store.

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Principle.....	1
4 Apparatus	2
4.1 IRHD pocket hardness meter	2
5 Test pieces	2
5.1 General	2
5.2 Thickness	3
5.3 Surface.....	3
6 Conditioning and test temperature.....	3
7 Procedure	3
7.1 General	3
7.2 Test time.....	3
7.3 Number of measurements	3
8 Calibration and checking.....	4
8.1 Calibration.....	4
8.2 Checking using standard rubber blocks.....	4
9 Test report.....	4
Bibliography.....	5

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 7619-2 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analysis*.

This second edition cancels and replaces the first edition (ISO 7619-2:2004), which has been technically revised to update the references to ISO 18898 for instrument calibration and ISO 23529 for the preparation of test pieces.

ISO 7619 consists of the following parts, under the general title *Rubber, vulcanized or thermoplastic — Determination of indentation hardness*:

- *Part 1: Durometer method (Shore hardness)*
- *Part 2: IRHD pocket meter method*

This is a preview of "ISO 7619-2:2010". [Click here to purchase the full version from the ANSI store.](#)

Introduction

The hardness of rubber, as measured by an IRHD pocket meter or a Shore durometer, is determined from the complex response of the rubber to an applied indentation. An IRHD pocket meter is a portable hand-held durometer calibrated to measure on the IRHD scale. The measurement will depend upon:

- a) the elastic modulus of the rubber;
- b) the viscoelastic properties of the rubber;
- c) the thickness of the test piece;
- d) the geometry of the indenter;
- e) the pressure exerted;
- f) the rate of increase of pressure;
- g) the interval after which the hardness is recorded.

Because of these factors, it is inadvisable to relate results obtained using an IRHD pocket meter directly to Shore durometer hardness values, although correlations have been established for some individual rubbers and compounds.

NOTE Further information on the relationship between the durometer values and IRHD values is given in the literature^{[3][4][5]}.