

This is a preview of "ISO 6508-1:2015". [Click here to purchase the full version from the ANSI store.](#)

Third edition  
2015-03-01

---

---

# Metallic materials — Rockwell hardness test —

## Part 1: Test method

*Matériaux métalliques — Essai de dureté Rockwell —  
Partie 1: Méthode d'essai*



Reference number  
ISO 6508-1:2015(E)

© ISO 2015



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015

All rights reserved. Unless otherwise specified, 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  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 6508-1:2015". [Click here to purchase the full version from the ANSI store.](#)

## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Principle</b> .....	<b>1</b>
<b>4 Symbols, abbreviated terms and designations</b> .....	<b>1</b>
<b>5 Testing machine</b> .....	<b>4</b>
<b>6 Test piece</b> .....	<b>5</b>
<b>7 Procedure</b> .....	<b>5</b>
<b>8 Uncertainty of the results</b> .....	<b>7</b>
<b>9 Test report</b> .....	<b>7</b>
<b>10 Conversions to other hardness scales or tensile strength values</b> .....	<b>7</b>
<b>Annex A (normative) Special HR30T<sub>Sm</sub> and HR15T<sub>Sm</sub> test for thin products</b> .....	<b>8</b>
<b>Annex B (normative) Minimum thickness of the test piece in relation to the Rockwell hardness</b> .....	<b>9</b>
<b>Annex C (normative) Corrections to be added to Rockwell hardness values obtained on convex cylindrical surfaces</b> .....	<b>12</b>
<b>Annex D (normative) Corrections to be added to Rockwell hardness C scale values obtained on spherical test surfaces of various diameters</b> .....	<b>15</b>
<b>Annex E (normative) Daily Verification Procedure</b> .....	<b>16</b>
<b>Annex F (normative) Inspection of diamond indenters</b> .....	<b>19</b>
<b>Annex G (informative) Uncertainty of the measured hardness values</b> .....	<b>20</b>
<b>Annex H (informative) CCM - Working Group on Hardness</b> .....	<b>29</b>
<b>Annex I (informative) Rockwell Hardness Measurement Traceability</b> .....	<b>30</b>
<b>Bibliography</b> .....	<b>33</b>

## 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](http://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](http://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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 3, *Hardness testing*.

This third edition cancels and replaces the second edition (ISO 6508-1:2005), which has been technically revised.

ISO 6508 consists of the following parts, under the general title *Metallic materials — Rockwell hardness test*:

- *Part 1: Test method*
- *Part 2: Verification and calibration of testing machines and indenters*
- *Part 3: Calibration of reference blocks*