

**Metallic materials - Rockwell hardness test - Part 2: Verification and calibration of testing machines (scales A, B, C, D, E, F, G, H, K, N, T)**

Metallic materials - Rockwell hardness test - Part 2:  
Verification and calibration of testing machines  
(scales A, B, C, D, E, F, G, H, K, N, T)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 6508-2:2006 sisaldab Euroopa standardi EN ISO 6508-2:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.02.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 6508-2:2006 consists of the English text of the European standard EN ISO 6508-2:2005.</p> <p>This document is endorsed on 27.02.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This part of ISO 6508 specifies a method of verification of testing machines for determining Rockwell hardness (scales A, B, C, D, E, F, G, H, K, N, T) in accordance with ISO 6508-1.</p>	<p><b>Scope:</b> This part of ISO 6508 specifies a method of verification of testing machines for determining Rockwell hardness (scales A, B, C, D, E, F, G, H, K, N, T) in accordance with ISO 6508-1.</p>
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**Võtmesõnad:** hardness testers, hardness tests, mechanical tests, metallurgical products, rockwell hardness, test equipment, tests, verification

English Version

**Metallic materials - Rockwell hardness test - Part 2: Verification  
and calibration of testing machines (scales A, B, C, D, E, F, G,  
H, K, N, T) (ISO 6508-2:2005)**

Matériaux métalliques - Essai de dureté Rockwell - Partie 2:  
Vérification et étalonnage des machines d'essai (échelles  
A, B, C, D, E, F, G, H, K, N, T) (ISO 6508-2:2005)

Metallische Werkstoffe - Härteprüfung nach Rockwell - Teil  
2: Prüfung und Kalibrierung der Prüfmaschinen (Skalen A,  
B, C, D, E, F, G, H, K, N, T) (ISO 6508-2:2005)

This European Standard was approved by CEN on 14 December 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN ISO 6508-2:2005) has been prepared by Technical Committee ISO/TC 164 "Mechanical testing of metals" in collaboration with Technical Committee ECISS/TC 1 "Steel - Mechanical testing", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

This document supersedes EN ISO 6508-2:1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of ISO 6508-2:2005 has been approved by CEN as EN ISO 6508-2:2005 without any modifications.

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test —**

**Part 2:  
Verification and calibration of testing  
machines (scales A, B, C, D, E, F, G, H, K,  
N, T)**

*Matériaux métalliques — Essai de dureté Rockwell —*

*Partie 2: Vérification et étalonnage des machines d'essai (échelles A, B,  
C, D, E, F, G, H, K, N, T)*



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## 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 6508-2 was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 3, *Hardness testing*.

This second edition cancels and replaces the first edition (ISO 6508-2:1999), 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 (scales A, B, C, D, E, F, G, H, K, N, T)*
- *Part 2: Verification and calibration of testing machines (scales A, B, C, D, E, F, G, H, K, N, T)*
- *Part 3: Calibration of reference blocks (scales A, B, C, D, E, F, G, H, K, N, T)*



## Introduction

Attention is drawn to the fact that, in this part of ISO 6508, the use of hardmetal for ball indenters is considered to be the standard type of Rockwell indenter ball. Steel indenter balls may be continued to be used if specified in a product specification, or by special agreement.



# Metallic materials — Rockwell hardness test —

## Part 2:

## Verification and calibration of testing machines (scales A, B, C, D, E, F, G, H, K, N, T)

### 1 Scope

This part of ISO 6508 specifies a method of verification of testing machines for determining Rockwell hardness (scales A, B, C, D, E, F, G, H, K, N, T) in accordance with ISO 6508-1.

It specifies a direct method for checking the main functions of the machine operation and an indirect method suitable for the overall checking of the machine. The indirect method may be used on its own for periodic routine checking of the machine in service.

If a testing machine is also to be used for other methods of hardness testing, it shall be verified independently for each method.

This part of ISO 6508 is applicable to portable hardness testing machines.

### 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 376:2004, *Metallic materials — Calibration of force-proving instruments used for verification of uniaxial testing machines*

ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)*

ISO 6508-3:2005, *Metallic materials — Rockwell hardness test — Part 3: Calibration of reference blocks (scales A, B, C, D, E, F, G, H, K, N, T)*

### 3 General conditions

Before a Rockwell hardness testing machine is verified, the machine shall be checked to ensure that it is properly set up in accordance with the manufacturer's instructions:

Especially it should be checked that:

- a) the plunger holding the indenter is capable of sliding in its guide;