

SLOVENSKI STANDARD

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Kovinski materiali – Preskus trdote po Brinellu – 2. del: Preverjanje in umerjanje naprav za preskušanje (ISO 6506-2:2005)

Metallic materials - Brinell hardness test - Part 2: Verification and calibration of testing machines (ISO 6506-2:2005)

Metallische Werkstoffe - Härteprüfung nach Brinell - Teil 2: Prüfung und Kalibrierung der Prüfmaschinen (ISO 6506-2:2005)

Matériaux métalliques - Essai de dureté Brinell - Partie 2: Vérification et étalonnage des machines d'essai (ISO 6506-2:2005)

Ta slovenski standard je istoveten z: EN ISO 6506-2:2005

ICS:

77.040.10 Mehansko preskušanje kovin Mechanical testing of metals

SIST EN ISO 6506-2:2006

en

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English Version

**Metallic materials - Brinell hardness test - Part 2: Verification
and calibration of testing machines (ISO 6506-2:2005)**

Matériaux métalliques - Essai de dureté Brinell - Partie 2:
Vérification et étalonnage des machines d'essai (ISO 6506-
2:2005)

Metallische Werkstoffe - Härteprüfung nach Brinell - Teil 2:
Prüfung und Kalibrierung der Prüfmaschinen (ISO 6506-
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.

CEN members are the national standards bodies of 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.

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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 6506-2:2005) 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 6506-2:1999.

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 6506-2:2005 has been approved by CEN as EN ISO 6506-2:2005 without any modifications.

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**Metallic materials — Brinell hardness
test —**

**Part 2:
Verification and calibration of testing
machines**

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Matériaux métalliques — Essai de dureté Brinell —

Partie 2: Vérification et étalonnage des machines d'essai

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Reference number
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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 6506-2 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 6506-2:1999) which has been technically revised.

ISO 6506 consists of the following parts, under the general title *Metallic materials — Brinell hardness test*:

- *Part 1: Test method* <https://standards.iteh.ai/catalog/standards/sist/9da47a0f-2b82-468b-bbdb-0eacfeb8d5af/sist-en-iso-6506-2-2006>
- *Part 2: Verification and calibration of testing machines*
- *Part 3: Calibration of reference blocks*
- *Part 4: Table of hardness values*

Introduction

Attention is drawn to the fact that in this part of ISO 6506, only the use of the hardmetal ball indenter is specified.

The designation of the Brinell hardness is HBW and should not be confused with the former designation HB, or HBS when a steel ball indenter was used.

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Metallic materials — Brinell hardness test —

Part 2: Verification and calibration of testing machines

1 Scope

This part of ISO 6506 specifies a method of verification and calibration of testing machines used for determining Brinell hardness in accordance with ISO 6506-1.

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

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

This part of ISO 6506 is also applicable to portable hardness testing machines.

2 Normative references

[SIST EN ISO 6506-2:2006](https://standards.iteh.ai/catalog/standards/sist/9da47a0f-2b82-468b-bbdb-0eacfeb8d5af/sist-en-iso-6506-2-2006)

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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 the verification of uniaxial testing machines*

ISO 6506-1:2005, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 6506-3, *Metallic materials — Brinell hardness test — Part 3: Calibration of reference blocks*

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

3 General conditions

Before a Brinell 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:

- the plunger holding the ball slides correctly in its guide;
- the ball-holder with a ball (from a lot verified in accordance with 4.3) is firmly mounted in the plunger;
- the test force is applied and removed without shock, vibration or overrun and in such a manner that the readings are not influenced;