



SLOVENSKI STANDARD SIST EN ISO 6506-4:2014

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Nadomešča:
SIST EN ISO 6506-4:2006

Kovinski materiali - Preskus trdote po Brinellu - 4. del: Preglednica za ugotavljanje trdote (ISO 6506-4:2014)

Metallic materials - Brinell hardness test - Part 4: Table of hardness values (ISO 6506-4:2014)

Metallische Werkstoffe - Härteprüfung nach Brinell - Teil 4: Tabelle zur Bestimmung der Härte (ISO 6506-4:2014)

Matériaux métalliques - Essai de dureté Brinell - Partie 4: Tableau des valeurs de dureté (ISO 6506-4:2014) <https://standards.iteh.ai/catalog/standards/sist/8c718abc-1277-48b4-9ffd-a88f18473b9b/sist-en-iso-6506-4-2014>

Ta slovenski standard je istoveten z: EN ISO 6506-4:2014

ICS:

77.040.10 Mehansko preskušanje kovin Mechanical testing of metals

SIST EN ISO 6506-4:2014

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 6506-4

September 2014

ICS 77.040.10

Supersedes EN ISO 6506-4:2005

English Version

Metallic materials - Brinell hardness test - Part 4: Table of hardness values (ISO 6506-4:2014)

Matériaux métalliques - Essai de dureté Brinell - Partie 4:
Tableau des valeurs de dureté (ISO 6506-4:2014)

Metallische Werkstoffe - Härteprüfung nach Brinell - Teil 4:
Tabelle zur Bestimmung der Härte (ISO 6506-4:2014)

This European Standard was approved by CEN on 30 August 2014.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 6506-4:2014) has been prepared by Technical Committee ISO/TC 164 "Mechanical testing of metals" in collaboration with Technical Committee ECISS/TC 101 "Test methods for steel (other than chemical analysis)" 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of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 6506-4:2005.

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

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The text of ISO 6506-4:2014 has been approved by CEN as EN ISO 6506-4:2014 without any modification.

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INTERNATIONAL
STANDARD

ISO
6506-4

Second edition
2014-10-01

**Metallic materials — Brinell hardness
test —**

**Part 4:
Table of hardness values**

Matériaux métalliques — Essai de dureté Brinell —

Partie 4: Tableau des valeurs de dureté

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
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ISO 6506-4:2014(E)

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).

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).

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 second edition cancels and replaces the first edition (ISO 6506-4:2005), 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*
- *Part 2: Verification and calibration of testing machines*
- *Part 3: Calibration of reference blocks*
- *Part 4: Table of hardness values*

Metallic materials — Brinell hardness test —

Part 4: Table of hardness values

1 Scope

This part of ISO 6506 gives a table of the Brinell hardness values for use in tests on flat surfaces.

2 Determination of the Brinell hardness for testing on flat surfaces

See [Tables 1](#) and [2](#). Where the measured indentation diameter value is not given in the table, a linear interpolation between the two adjacent values and between the two corresponding hardness values should be carried out. Each hardness value is quoted to three significant figures, but is calculated from the nominal force-diameter index rather than from the specified force value, in order to avoid variations in the hardness values calculated at a specific force-diameter index. In some cases, this calculation method leads to an error of one digit in the least significant figure.

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Table 1

Ball indenter <i>D</i> mm	Force-diameter index $0,102 \times F/D^2$					
	30	15	10	5	2,5	1
	Test force <i>F</i>					
10	29,42 kN	14,71 kN	9,807 kN	4,903 kN	2,452 kN	980,7 N
5	7,355 kN	--	2,452 kN	1,226 kN	612,9 N	245,2 N
2,5	1,839 kN	--	612,9 N	306,5 N	153,2 N	61,29 N
1	294,2 N	--	98,07 N	49,03 N	24,52 N	9,807 N

Table 2

Ball indenter <i>D</i> mm				Force-diameter index $0,102 \times F/D^2$					
10	5	2,5	1	30	15	10	5	2,5	1
Mean diameter of the indentation <i>d</i> mm				Brinell hardness HBW					
2,40	1,200	0,600 0	0,240	653	327	218	109	54,5	21,8
2,41	1,205	0,602 5	0,241	648	324	216	108	54,0	21,6
2,42	1,210	0,605 0	0,242	643	321	214	107	53,5	21,4
2,43	1,215	0,607 5	0,243	637	319	212	106	53,1	21,2
2,44	1,220	0,610 0	0,244	632	316	211	105	52,7	21,1
2,45	1,225	0,612 5	0,245	627	313	209	104	52,2	20,9
2,46	1,230	0,615 0	0,246	621	311	207	104	51,8	20,7