

**Metallic materials - Brinell hardness test - Part 3:  
Calibration of reference blocks (ISO 6506-3:2014)**

## EESTI STANDARDI EESSÕNA

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English Version

**Metallic materials - Brinell hardness test - Part 3: Calibration of  
reference blocks (ISO 6506-3:2014)**

Matériaux métalliques - Essai de dureté Brinell - Partie 3:  
Étalonnage des blocs de référence (ISO 6506-3:2014)

Metallische Werkstoffe - Härteprüfung nach Brinell - Teil 3:  
Kalibrierung von Härtevergleichsplatten (ISO 6506-3:2014)

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## Foreword

This document (EN ISO 6506-3:2014) 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of an identical text or by endorsement, at the latest by March 2015, and conflicting national standards shall be withdrawn at the latest by March 2015.

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### Endorsement notice

The text of ISO 6506-3:2014 has been approved by CEN as EN ISO 6506-3:2014 without any modification.

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# Metallic materials — Brinell hardness test —

## Part 3: Calibration of reference blocks

### 1 Scope

This part of ISO 6506 specifies a method for the calibration of reference blocks to be used in the indirect verification of Brinell hardness testing machines as described in ISO 6506-2.

The procedures necessary to ensure metrological traceability of the calibration machine are also specified.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 376, *Metallic materials — Calibration of force-proving instruments used for the verification of uniaxial testing machines*

ISO 6506-1:2014, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 6506-2:2014, *Metallic materials — Brinell hardness test — Part 2: Verification and calibration of testing machines*

### 3 Manufacture of reference blocks

**3.1** The block shall be specially manufactured for use as a reference block.

**NOTE** Attention is drawn to the need to use a manufacturing process which will give the necessary homogeneity, stability of structure, and uniformity of surface hardness.

**3.2** Each metal block to be calibrated shall be of a thickness not less than

- 16 mm for 10 mm balls,
- 12 mm for 5 mm balls, or
- 6 mm for smaller balls.

**NOTE** 12 mm for 10 mm balls can be used only if the hardness of the reference block is greater than 150 HBW.

**3.3** The reference blocks shall be free of magnetism. It is recommended that the manufacturer shall ensure that the blocks, if of steel, have been demagnetized at the end of the manufacturing process.

**3.4** The flatness of the two surfaces and the parallelism of the reference block shall be in accordance with [Table 1](#).