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Metallic materials - Vickers hardness test - Part 2: Verification and calibration of testing machines (ISO 6507-2:2018)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

**Metallic materials - Vickers hardness test - Part 2:
Verification and calibration of testing machines (ISO 6507-
2:2018)**

Matériaux métalliques - Essai de dureté Vickers - Partie
2: Vérification et étalonnage des machines d'essai (ISO
6507-2:2018)

Metallische Werkstoffe - Härteprüfung nach Vickers -
Teil 2: Überprüfung und Kalibrierung der
Prüfmaschinen (ISO 6507-2:2018)

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EN ISO 6507-2:2018 (E)

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European foreword

This document (EN ISO 6507-2:2018) 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of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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The text of ISO 6507-2:2018 has been approved by CEN as EN ISO 6507-2:2018 without any modification.

INTERNATIONAL STANDARD

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Metallic materials — Vickers hardness test —

Part 2: Verification and calibration of testing machines

Matériaux métalliques — Essai de dureté Vickers —

Partie 2: Vérification et étalonnage des machines d'essai



Reference number
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ISO 6507-2:2018(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).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 3, *Hardness testing*.

This fourth edition cancels and replaces the third edition (ISO 6507-2:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

- all references of indentation diagonals, $<0,020$ mm, have been removed;
- requirements for the calibration and verification of the measuring system have been revised;
- requirements for the maximum permissible error in measuring a reference indentation have been revised;
- recommendations for inspection and monitoring of the indenter have been moved to ISO 6507-1;
- requirements have been added to the test report for reporting the hardness values of reference blocks used;
- [Annex A](#) has been revised.

A list of all parts in the ISO 6507 series can be found on the ISO website.

Metallic materials — Vickers hardness test —

Part 2: Verification and calibration of testing machines

1 Scope

This document specifies a method of verification and calibration of testing machines and diagonal measuring system for determining Vickers hardness in accordance with ISO 6507-1.

A direct method of verification and calibration is specified for the testing machine, indenter and the diagonal length measuring system. An indirect verification method using reference blocks is specified for the overall checking of the machine.

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

This document is also applicable to portable hardness testing machines but not applicable to hardness testing machines based on different measurement principles, e.g. ultrasonic impedance method.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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, *Metallic materials — Calibration of force-proving instruments used for the verification of uniaxial testing machines*

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

ISO 6507-3, *Metallic materials — Vickers hardness test — Part 3: Calibration of reference blocks*

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