

Metallic materials — Vickers hardness test —

Part 1: Test method

The European Standard EN ISO 6507-1:2005 has the status of a British Standard

ICS 77.040.10

National foreword

This British Standard is the official English language version of EN ISO 6507-1:2005. It is identical with ISO 6507-1:2005. It supersedes BS EN ISO 6507-1:1998 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee ISE/NFE/4, Mechanical testing of metals, to Subcommittee ISE/NFE/4/5, Indentation hardness testing, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

The members of subcommittee ISE/NFE/4/5 are concerned that the procedure in subclause 7.4 is ambiguous.

They believe that the operator should bring the indenter into the close proximity of the required area of the test sample without making contact with the surface. Then the testing machine should be operated to apply the test force.

Users are advised to be aware of this concern when following this procedure.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN ISO title page, the EN ISO foreword page, the ISO title page, pages ii to v, a blank page, pages 1 to 19 and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 23 January 2006

© BSI 23 January 2006

Amendments issued since publication

Amd. No.	Date	Comments

ISBN 0 580 47674 X

English Version

**Metallic materials - Vickers hardness test - Part 1: Test method
(ISO 6507-1:2005)**

Matériaux métalliques - Essai de dureté Vickers - Partie 1:
Méthode d'essai (ISO 6507-1:2005)

Metallische Werkstoffe - Härteprüfung nach Vickers - Teil
1: Prüfverfahren (ISO 6507-1:2005)

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.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

This document (EN ISO 6507-1:2005) 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 6507-1:1997.

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 6507-1:2005 has been approved by CEN as EN ISO 6507-1:2005 without any modifications.

INTERNATIONAL STANDARD

**ISO
6507-1**

Third edition
2005-12-15

Metallic materials — Vickers hardness test —

Part 1: Test method

Matériaux métalliques — Essai de dureté Vickers —

Partie 1: Méthode d'essai



Reference number
ISO 6507-1:2005(E)



Documents

Document Sharing Hub

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Principle	2
4 Symbols and abbreviated terms	2
5 Testing machine	3
6 Test piece	3
7 Procedure	3
8 Uncertainty of the results	5
9 Test report	5
Annex A (normative) Minimum thickness of the test piece in relation to the test force and to the hardness	6
Annex B (normative) Tables of correction factors for use in tests made on curved surfaces	8
Annex C (informative) Procedure for periodic checking of the testing machine by the user	12
Annex D (informative) Uncertainty of the measured hardness values	13
Bibliography	19

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 6507-1 was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 3, *Hardness testing*.

This third edition, together with ISO 6507-4, cancels and replaces the second edition (ISO 6507-1:1997) which has been technically revised.

ISO 6507 consists of the following parts, under the general title *Metallic materials — Vickers hardness test*:

- *Part 1: Test method*
- *Part 2: Verification and calibration of testing machines*
- *Part 3: Calibration of reference blocks*
- *Part 4: Tables of hardness values*

Introduction

The periodic checking of the testing machine described in informative Annex C is good metrological practice. It is intended to make the annex normative in the next revision of this part of ISO 6507 Standard.

For automated measuring systems this standard should be applied accordingly.