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Destructive tests on welds in metallic materials -  
Hardness testing - Part 1: Hardness test on arc welded  
joints (ISO 9015-1:2001)

## ESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 9015-1:2011 sisaldb Euroopa standardi EN ISO 9015-1:2011 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 9015-1:2011 consists of the English text of the European standard EN ISO 9015-1:2011.
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English Version

Destructive tests on welds in metallic materials - Hardness testing - Part 1: Hardness test on arc welded joints (ISO 9015-1:2001)

Essais destructifs des soudures sur matériaux métalliques -  
Essais de dureté - Partie 1: Essai de dureté des  
assemblages soudés à l'arc (ISO 9015-1:2001)

Zerstörende Prüfung von Schweißverbindungen an  
metallischen Werkstoffen - Härteprüfung - Teil 1:  
Härteprüfung für Lichtbogenschweißverbindungen (ISO  
9015-1:2001)

This European Standard was approved by CEN on 13 February 2011.

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## Foreword

The text of ISO 9015-1:2001 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 9015-1:2011 by Technical Committee CEN/TC 121 "Welding" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

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.

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### Endorsement notice

The text of ISO 9015-1:2001 has been approved by CEN as a EN ISO 9015-1:2011 without any modification.

## Contents

	Page
<b>Foreword</b> .....	iv
1 <b>Scope</b> .....	1
2 <b>Normative references</b> .....	1
3 <b>Principle</b> .....	1
4 <b>Symbols and terms</b> .....	2
5 <b>Preparation of test specimens</b> .....	2
6 <b>Test procedure</b> .....	2
7 <b>Test results</b> .....	4
8 <b>Test report</b> .....	4
<b>Annex A (informative) Example of a test report for hardness testing (R) on welded joints</b> .....	13
<b>Annex B (informative) Example of a test report for hardness testing (E) on welded joints</b> .....	14

# Destructive tests on welds in metallic materials — Hardness testing —

## Part 1: Hardness test on arc welded joints

### 1 Scope

This part of ISO 9015 specifies hardness tests on transverse sections of arc welded joints of metallic materials. It covers Vickers hardness tests in accordance with ISO 6507-1, normally with test loads of 49,03 N or 98,07 N (HV 5 or HV 10).

However, the principles may be applied to Brinell hardness testing (with appropriate testing loads of HB 2,5/15,625 or HB 1/2,5) in accordance with ISO 6506-1 and micro hardness testing in accordance with ISO 6507-1 and ISO 9015-2.

**NOTE** Testing should be carried out to ensure that the highest and the lowest level of hardness of both parent metal and weld metal is determined.

This part of ISO 9015 does not apply to test welds in austenitic stainless steels.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 9015. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 9015 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

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

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

ISO 9015-2, *Destructive tests on welds in metallic materials — Hardness testing — Part 2: Microhardness testing on welded joints*.

### 3 Principle

The type and extent of testing shall be as specified by the relevant application standard or by agreement between the contracting parties.

Hardness testing shall be carried out in accordance with ISO 6507-1 or ISO 6506-1.

The hardness tests may be carried out in the form of rows of indentations, R, or as individual indentations, E.

When types of weld are not shown in the examples in Figures 1 and 2, the test procedure shall be appropriate to the welded joint.

Unless otherwise specified, the test shall be carried out at ambient temperature ( $23 \pm 5$ ) °C.