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NSAI Standards

Irish Standard
I.S. EN ISO 9015-2:2016

Destructive tests on welds in metallic materials - Hardness testing - Part 2: Microhardness testing of welded joints (ISO 9015-2:2016)

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NSAI	T +353 1 807 3800	Sales:
1 Swift Square,	F +353 1 807 3838	T +353 1 857 6730
Northwood, Santry	E standards@nsai.ie	F +353 1 857 6729
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National Foreword

I.S. EN ISO 9015-2:2016 is the adopted Irish version of the European Document EN ISO 9015-2:2016, Destructive tests on welds in metallic materials - Hardness testing - Part 2: Microhardness testing of welded joints (ISO 9015-2:2016)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 9015-2

February 2016

ICS 25.160.40

Supersedes EN ISO 9015-2:2011

English Version

Destructive tests on welds in metallic materials - Hardness testing - Part 2: Microhardness testing of welded joints (ISO 9015-2:2016)

Essais destructifs des soudures sur matériaux métalliques - Essais de dureté - Partie 2: Essai de microdureté des assemblages soudés (ISO 9015-2:2016)

Zerstörende Prüfung von Schweißverbindungen an metallischen Werkstoffen - Härteprüfung - Teil 2: Mikrohärteprüfung an Schweißverbindungen (ISO 9015-2:2016)

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European foreword

This document (EN ISO 9015-2:2016) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with 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of an identical text or by endorsement, at the latest by August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

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INTERNATIONAL STANDARD

ISO 9015-2

Second edition
2016-02-01

Destructive tests on welds in metallic materials — Hardness testing —

Part 2: Microhardness testing of welded joints

Essais destructifs des soudures sur matériaux métalliques — Essais de dureté —

Partie 2: Essai de microdureté des assemblages soudés

Reference number
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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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The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 5, *Testing and inspection of welds*.

This second edition cancels and replaces the first edition (ISO 9015-2:2003), of which it constitutes a minor revision.

ISO 9015 consists of the following parts, under the general title *Destructive tests on welds in metallic materials — Hardness testing*:

— *Part 1: Hardness test on arc welded joints*

— *Part 2: Microhardness testing of welded joints*

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Destructive tests on welds in metallic materials — Hardness testing —

Part 2: Microhardness testing of welded joints

1 Scope

This part of ISO 9015 specifies microhardness testing on transverse sections of welded joints of metallic materials with high hardness gradients. It covers Vickers hardness tests in accordance with ISO 6507-1, normally with test loads of 0,98 N to less than 49 N (HV 0,1 to less than HV 5).

NOTE Testing ensures that the highest and/or the lowest level of hardness of both parent materials (in the case of dissimilar materials both parent materials) and weld metal is determined.

This part of ISO 9015 is not applicable to hardness testing of welds with loads of 49,03 N and above, which is covered by ISO 9015-1.

This part of ISO 9015 is not applicable to Vickers hardness testing of resistance spot, projection and seam welds, which is covered by ISO 14271.

This part of ISO 9015 is not applicable to hardness testing of very narrow welds, e.g. those typically produced by laser and electron beam welding (see ISO 22826).

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

3 Symbols and abbreviated terms

The symbols and terms to be used are specified in Table 1 and represented in Figures 1, 2 and 3.

Table 1 — Symbols and abbreviated terms

Symbol	Term	Unit
E	Individual indentation	—
H	Distance of rows of indentations from the reference line (surface or fusion line)	mm
HAZ	Heat affected zone	—
HV	Vickers hardness	—[a]
L	Distance between the centre point of the indentations in the heat-affected zone	mm
R	Row of indentations	—
t	Thickness of test specimen	mm

[a] Units for Vickers hardness are given in ISO 6507-1.

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