



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 17637:2016

# Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2016)

## I.S. EN ISO 17637:2016

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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## National Foreword

I.S. EN ISO 17637:2016 is the adopted Irish version of the European Document EN ISO 17637:2016, Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2016)

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

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EUROPEAN STANDARD

EN ISO 17637

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2016

ICS 25.160.40

Supersedes EN ISO 17637:2011

English Version

## Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637:2016)

Contrôle non destructif des assemblages soudés -  
Contrôle visuel des assemblages soudés par fusion (ISO  
17637:2016)

Zerstörungsfreie Prüfung von Schweißverbindungen -  
Sichtprüfung von Schmelzschweißverbindungen (ISO  
17637:2016)

This European Standard was approved by CEN on 19 October 2016.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN ISO 17637:2016 (E)**

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## **European foreword**

This document (EN ISO 17637:2016) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding and allied processes" 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 June 2017, and conflicting national standards shall be withdrawn at the latest by June 2017.

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.

This document supersedes EN ISO 17637:2011.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 17637:2016 has been approved by CEN as EN ISO 17637:2016 without any modification.

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# INTERNATIONAL STANDARD

**ISO  
17637**

Second edition  
2016-12-01

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## **Non-destructive testing of welds — Visual testing of fusion-welded joints**

*Contrôle non destructif des assemblages soudés — Contrôle visuel des  
assemblages soudés par fusion*



Reference number  
ISO 17637:2016(E)

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**ISO 17637:2016(E)**



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## ISO 17637:2016(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](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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](http://www.iso.org/iso/foreword.html).

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 17637:2003), which has been technically revised.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 5 via your national standards body. A complete listing of these bodies can be found at [www.iso.org](http://www.iso.org).

# Non-destructive testing of welds — Visual testing of fusion-welded joints

## 1 Scope

This document specifies the visual testing of fusion welds in metallic materials. It may also be applied to visual testing of the joint prior to welding.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

No terms and definitions are listed in this document.

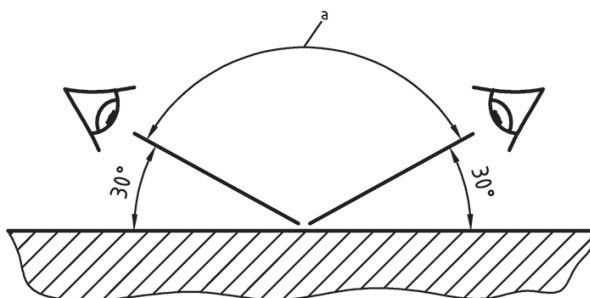
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

## 4 Test conditions and equipment

The illuminance at the surface with white light shall be a minimum of 350 lx; wearing of tinted goggles (e.g. protective sunglasses) increases the minimum illuminance. However, 500 lx is recommended.

For direct inspection, the access shall be sufficient to place the eye within 600 mm of the surface to be examined and at an angle not less than 30° (see [Figure 1](#)).



a Range.

**Figure 1 — Access for testing**

Remote inspection using mirrors, boroscopes, fibre optic cables or cameras shall be considered when the access for testing in accordance with [Figure 1](#) is not possible or when specified by an application standard.

An additional light source can be used to increase the contrast and relief between imperfections and the background.

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