



NSAI
Standards

Irish Standard
I.S. EN ISO 9455-15:2017

Soft soldering fluxes - Test methods - Part 15: Copper corrosion test (ISO 9455-15:2017)

I.S. EN ISO 9455-15:2017

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NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

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National Foreword

I.S. EN ISO 9455-15:2017 is the adopted Irish version of the European Document EN ISO 9455-15:2017, Soft soldering fluxes - Test methods - Part 15: Copper corrosion test (ISO 9455-15:2017)

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EUROPEAN STANDARD

EN ISO 9455-15

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2017

ICS 25.160.50

Supersedes EN ISO 9455-15:1999

English Version

Soft soldering fluxes - Test methods - Part 15: Copper corrosion test (ISO 9455-15:2017)

Flux de brasage tendre - Méthodes d'essai - Partie 15:
Essai de corrosion du cuivre (ISO 9455-15:2017)

Flussmittel zum Weichlöten - Prüfverfahren - Teil 15:
Kupferkorrosionsprüfung (ISO 9455-15:2017)

This European Standard was approved by CEN on 8 September 2017.

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

EN ISO 9455-15:2017 (E)

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European foreword

This document (EN ISO 9455-15:2017) 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of an identical text or by endorsement, at the latest by March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 9455-15:1999.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 9455-15:2017 has been approved by CEN as EN ISO 9455-15:2017 without any modification.

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INTERNATIONAL STANDARD

**ISO
9455-15**

Second edition
2017-08

Soft soldering fluxes — Test methods —

Part 15: Copper corrosion test

Flux de brasage tendre — Méthodes d'essai —

Partie 15: Essai de corrosion du cuivre



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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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ISO 9455-15:2017(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 44, *Welding and allied processes*, Subcommittee SC 12, *Soldering materials*.

This second edition cancels and replaces the first edition (ISO 9455-15:1996), which has been technically revised.

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

- the use of lead-free solders has been included;
- the requirements for the apparatus have been updated;
- the test report has been updated;
- the figures in [Annex A](#) have been re-arranged;
- this document has been editorially revised.

A list of all parts in the ISO 9455 series can be found on the ISO website.

Requests for official interpretations of any aspect of this document should be directed to the Secretariat of ISO/TC 44/SC 12 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

Soft soldering fluxes — Test methods —

Part 15: Copper corrosion test

1 Scope

This document specifies a qualitative method for determination of the corrosive properties of flux residues on a copper substrate when subjected to controlled environmental conditions. The test is applicable to type 1 fluxes, as defined in ISO 9454-1.

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 197-1, *Copper and copper alloys — Terms and definitions — Part 1: Materials*

ISO 9453, *Soft solder alloys — Chemical compositions and forms*

ISO 9455-1, *Soft soldering fluxes — Test methods — Part 1: Determination of non-volatile matter, gravimetric method*

ISO 9455-2, *Soft soldering fluxes — Test methods — Part 2: Determination of non-volatile matter, ebulliometric method*

IEC 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state*

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 Principle

A pellet of solder is melted in contact with the flux to be tested on a test piece of copper sheet. The test piece is then exposed to a controlled temperature/humidity environment and the resulting corrosion of the copper, if any, is assessed using a low-power microscope.

5 Reagents and materials

Only reagents of recognized analytical quality and only distilled or deionized water shall be used.

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