



SLOVENSKI STANDARD
SIST EN ISO 9455-16:2002

01-maj-2002

Soft soldering fluxes - Test methods - Part 16: Flux efficacy tests, wetting balance method (ISO 9455-16:1998)

Flussmittel zum Weichlöten - Prüfverfahren - Teil 16: Bestimmung der Wirksamkeit des Flussmittels, Verfahren zur Messung der Benetzungskraft (ISO 9455-16:1998)

Flux de brasage tendre - Méthodes d'essai - Partie 16: Essais d'efficacité des flux, méthode a la balance de mouillage (ISO 9455-16:1998)

Ta slovenski standard je istoveten z: EN ISO 9455-16:2001

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ICS:

25.160.50 Trdo in mehko lotanje Brazing and soldering

SIST EN ISO 9455-16:2002 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 9455-16

August 2001

ICS 25.160.50

English version

Soft soldering fluxes - Test methods - Part 16: Flux efficacy tests, wetting balance method (ISO 9455-16:1998)

Flux de brasage tendre - Méthodes d'essai - Partie 16:
Essais d'efficacité des flux, méthode à la balance de
mouillage (ISO 9455-16:1998)

Flussmittel zum Weichlöten - Prüfverfahren - Teil 16:
Bestimmung der Wirksamkeit des Flussmittels, Verfahren
zur Messung der Benetzungskraft (ISO 9455-16:1998)

This European Standard was approved by CEN on 14 June 2001.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EN ISO 9455-16:2001 (E)

CORRECTED 2002-09-18

Foreword

This document (EN ISO 9455-16:2001) 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 DS.

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 February 2002, and conflicting national standards shall be withdrawn at the latest by February 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 9455-16:1998 has been approved by CEN as EN ISO 9455-16:2001 without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

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Annex ZA (normative)

Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 9453	1990	Soft soldering fluxes - Chemical compositions and forms	EN 29453	1993
ISO 9454-1	1990	Soft soldering fluxes - Classification and requirements - Part 1: Classification, labelling and packaging	EN 29454-1	1993

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INTERNATIONAL
STANDARD

ISO
9455-16

First edition
1998-12-01

Soft soldering fluxes — Test methods —

Part 16:

Flux efficacy tests, wetting balance method

Flux de brassage tendre — Méthodes d'essai —

Partie 16: Essais d'efficacité des flux, méthode à la balance de mouillage

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Reference number
ISO 9455-16:1998(E)

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Foreword

ISO (the International Organisation 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.

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.

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International Standard ISO 9455-16 was prepared by Technical Committee ISO/TC 44 *Welding and allied processes*, Subcommittee SC 12, *Soldering and brazing materials*.

ISO 9455 consists of the following parts, under the general title *Soft soldering fluxes — Test methods*:

- *Part 1: Determination of non-volatile matter, gravimetric method*
- *Part 2: Determination of non-volatile matter, ebulliometric method*
- *Part 3: Determination of acid value, potentiometric and visual titration methods*
- *Part 5: Copper mirror test*
- *Part 6: Determination and detection of halide (excluding fluoride) content*
- *Part 8: Determination of zinc content*
- *Part 9: Determination of ammonia content*
- *Part 10: Flux efficacy tests, solder spread method*
- *Part 11: Solubility of flux residues*
- *Part 12: Steel tube corrosion test*
- *Part 13: Determination of flux spattering*
- *Part 14: Assessment of tackiness of flux residues*

- *Part 15: Copper corrosion test*
- *Part 16: Flux efficacy tests, wetting balance method*
- *Part 17: Surface insulation resistance, comb test and electrochemical migration test of flux residues*

Annexes A and B form an integral part of this part of ISO 9455.

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Soft soldering fluxes — Test methods —

Part 16:

Flux efficacy tests, wetting balance method

1 Scope

This part of ISO 9455 specifies a method for the assessment of the efficacy of a soft soldering flux, known as the wetting balance method. It gives a qualitative assessment of the comparative efficacy of two fluxes (for example, a standard and a test flux), based on their capacity to promote wetting of a metal surface by liquid solder. The method is applicable to all flux types in liquid form classified in ISO 9454-1.

NOTE It is hoped that future developments using improved techniques for obtaining a reproducible range of test surfaces will enable this method for assessing flux efficacy to be quantitative. For this reason several alternative procedures for preparing the surface of the test piece are included in the present method.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 9455. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9455 are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1634-1:1987, *Wrought copper and copper alloy plate, sheet and strip — Part 1: Technical conditions of delivery for plate, sheet, and strip for general purposes.*

ISO 9453:1990, *Soft solder alloys — Chemical compositions and forms.*

ISO 9454-1:1990, *Soft soldering fluxes — Classification and requirements — Part 1: Classification, labelling and packaging.*

IEC 60068-2-3:1969, *Environmental testing. Part 2: Tests. Test Ca: Damp heat, steady state.*

IEC 60068-2-20:1979, *Environmental testing. Part 2: Tests. Test T: Soldering*

IEC 60068-2-54:1985, *Environmental testing. Part 2: Tests. Test Ta: Soldering - Solderability testing by the wetting balance method.*

3 Principle

The efficacy of the liquid flux under test is compared with that of a standard liquid flux using a wetting balance in conjunction with a prescribed test piece, appropriate to the class of flux under test.