

STN	Skúšanie vplyvu prostredia Časť 2-83: Skúšky Skúška Tf: Skúšanie spájkovateľnosti elektronických súčiastok pre zariadenia na povrchovú montáž (SMD) metódou zmáčacích váh s použitím spájkovacej pasty	STN EN IEC 60068-2-83 34 5791
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Environmental testing - Part 2-83: Tests - Test Tf: Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method using solder paste

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/26

Obsahuje: EN IEC 60068-2-83:2025, IEC 60068-2-83:2025

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60068-2-83

July 2025

ICS 19.040; 31.190

Supersedes EN 60068-2-83:2011

English Version

**Environmental testing - Part 2-83: Tests - Test Tf: Solderability
testing of electronic components for surface mounting devices
(SMD) by the wetting balance method using solder paste
(IEC 60068-2-83:2025)**

Essais d'environnement - Partie 2-83: Essais - Essai Tf:
Essai de brasabilité des composants électroniques pour les
composants montés en surface (CMS) par la méthode de la
balance de mouillage utilisant de la pâte à braser
(IEC 60068-2-83:2025)

Umweltprüfungen - Teil 2-83: Prüfungen - Prüfung Tf:
Prüfung der Lötbarkeit von elektronischen Bauelementen
für oberflächenmontierbaren Bauelementen (SMD) nach
dem Benetzungsbilanzverfahren unter Verwendung von
Lotpaste
(IEC 60068-2-83:2025)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60068-2-83:2025 (E)**European foreword**

The text of document 91/2026/FDIS, future edition 2 of IEC 60068-2-83, prepared by TC 91 "Electronics assembly technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60068-2-83:2025.

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- latest date by which the national standards conflicting with the (dow) 2028-07-31 document have to be withdrawn

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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60068-2-69 NOTE Approved as EN 60068-2-69

IEC 60068-3-13:2016 NOTE Approved as EN 60068-3-13:2016 (not modified)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60068-2-20	2021	Environmental testing - Part 2-20: Tests - Test Ta and Tb: Test methods for solderability and resistance to soldering heat of devices with leads	EN IEC 60068-2-20	2021
IEC 60068-2-58	-	Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58	-
IEC 60194-2	-	Printed boards design, manufacture and assembly - Vocabulary - Part 2: Common usage in electronic technologies as well as printed board and electronic assembly technologies	-	-
IEC 61190-1-3	-	Attachment materials for electronic assembly - Part 1-3: Requirements for electronic grade solder alloys and fluxed and non-fluxed solid solder for electronic soldering applications	EN IEC 61190-1-3	-



IEC 60068-2-83

Edition 2.0 2025-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Environmental testing –

Part 2-83: Tests – Test Tf: Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method using solder paste

Essais d'environnement –

Partie 2-83: Essais – Essai Tf: Essai de brasabilité des composants électroniques pour les composants montés en surface (CMS) par la méthode de la balance de mouillage utilisant de la pâte à braser

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –

Part 2-83: Tests – Test Tf: Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method using solder paste

FOREWORD

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IEC 60068-2-83 has been prepared by IEC technical committee 91: Electronics assembly technology. It is an International Standard.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition:

- a) Revise Clause 5 to align with that in IEC 60068-2-20:2021.

The text of this International Standard is based on the following documents:

Draft	Report on voting
91/2026/FDIS	91/2037/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60068 series, published under the general title *Environmental testing*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

ENVIRONMENTAL TESTING –

Part 2-83: Tests – Test Tf: Solderability testing of electronic components for surface mounting devices (SMD) by the wetting balance method using solder paste

1 Scope

This part of IEC 60068 provides methods for comparative investigation of the wettability of the metallic terminations or metallized terminations of SMDs with solder paste.

Data obtained by these methods are not intended to be used as absolute quantitative data for pass/fail purposes.

NOTE Different solderability test methods for SMD are described in IEC 60068-2-58 and IEC 60068-2-69. IEC 60068-2-58 specifies visual evaluation using solder bath and reflow method, IEC 60068-2-69 specifies wetting balance evaluation using solder bath and solder globule method.

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.

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-20:2021, *Environmental testing – Part 2-20: Tests – Test Ta and Tb: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-58, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60194-2, *Printed boards design, manufacture and assembly – Vocabulary – Part 2: Common usage in electronic technologies as well as printed board and electronic assembly technologies*

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