

INTERNATIONAL STANDARD

IEC
60068-2-58

Second edition
1999-01

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)**

Essais d'environnement –

Partie 2-58:

*Essais – Essai Td – Méthodes d'essai de la soudabilité,
de la résistance de la métallisation à la dissolution
et de la résistance à la chaleur de soudage
des composants pour montage en surface*



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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)

FOREWORD

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International Standard IEC 60068-2-58 has been prepared by IEC technical committee 50: Environmental testing, and is published by IEC technical committee 91: Surface mounting technology.

This second edition cancels and replaces the first edition, published in 1989, and constitutes a technical revision.

The text of this standard is based on the following documents:

FDIS	Report on voting
91/157/FDIS	91/164/RVD

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

Annex A forms an integral part of this standard.

Annex B is for information only.

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)

1 Scope

This part of IEC 60068 outlines test Td, applicable to surface mounting devices (SMD). Soldering tests applicable to SMD in IEC 60068-2-69 and to other electrotechnical products are in IEC 60068-2-20 and IEC 60068-2-54, for which guidance is given in IEC 60068-2-44.

This standard provides standard procedures for determining the solderability, resistance to dissolution of metallization and resistance to soldering heat of surface mounting devices (SMD) (hereinafter referred to as specimens).

The procedures use either a solder bath or reflow method and are applicable only to specimens or products designed to withstand short term immersion in molten solder or limited exposure to reflow systems.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60068. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60068 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

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

IEC 60068-2-44:1995, *Environmental testing – Part 2: Tests – Guidance on test T: Soldering*

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

IEC 60068-2-69:1995, *Environmental testing – Part 2: Tests – Test Te: Solderability testing of electronic components for surface mount technology by the wetting balance method*

IEC 60249-2-4:1987, *Base materials for printed circuits – Part 2: Specifications – Specification No. 4: Epoxide woven, glass fabric, copper-clad laminated sheet, general purpose grade*

IEC 60749:1996, *Semiconductor devices – Mechanical and climatic test methods*

3 Terms and definitions

For the purpose of this part of IEC 60068, the terms and definitions as defined in IEC 60068-1 and IEC 60068-2-20 apply.