

**SLOVENSKI
PREDSTANDARD**

OSIST prEN 60068-2-54:2004

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Environmental testing -- Part 2: Tests - Test Ta: Solderability testing of electronic components by the wetting balance method

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Titre :

Title : IEC 60068-2-54, Ed.2: Environmental testing - Part 2-54: Tests. Test Ta: Solderability testing of electronic components by the wetting balance method

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Note d'introduction

Introductory note

La version française sera diffusée ultérieurement

French version will be circulated later.

ATTENTION CDV soumis en parallèle au vote (CEI) et à l'enquête (CENELEC)	ATTENTION Parallel IEC CDV/CENELEC Enquiry
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –
Part 2-54: Tests – Test Ta: Solderability testing
of electronic components by the wetting balance method

FOREWORD

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International Standard IEC 60068-2-54 has been prepared by IEC technical committee 91: Electronics Assembly Technology

SIST EN 60068-2-54:2006

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

FDIS	Report on voting
91/xxx/FDIS	91/xxx/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.

Annexes A and B form an integral part of this standard.

ENVIRONMENTAL TESTING – Part 2-54: Tests – Test Ta: Solderability testing of electronic components by the wetting balance method

1 Scope

This part of IEC 60068 outlines test Ta, solder bath wetting balance method applicable for any shape of component terminations to determine the solderability. It is specially suitable for reference testing and for components that cannot be quantitatively tested by other methods. For surface mounting devices (SMD), IEC 60068-2-69 should be applied if it is suitable.

This standard provides the standard procedures for solder alloys containing lead (Pb) and for lead-free solder alloys.

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

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.

4 General description of the test

The specimen is suspended from a sensitive balance (typically a spring system) and immersed edgewise to a set depth in a bath of molten solder at a controlled temperature. The resultant of the vertical forces of buoyancy and surface tension acting upon the immersed specimen is detected by a transducer and converted into a signal which is continuously recorded as a function of time on a high-speed chart recorder. The trace may be compared with that derived from a perfectly wetted specimen of the same nature and dimensions.

Two modes of testing exist.

- The stationary mode, intended to study the solderability of a particular place on the specimen. It is this mode which is standardized in this standard.
- The scanning mode, intended to study the homogeneity of the solderability of an extended region of the surface of the specimen. The standardization of this mode is still under consideration.