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Part 1-305: Mechanical test methods - Solderability and resistance to soldering

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IEC 61196-1-305 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories. It is an International Standard.

This second edition cancels and replaces the first edition published in 2015. This edition constitutes a technical revision.

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

a) 4.1 Preparation of test specimen was added;
b) 4.2 Procedure, 4.3 Requirements and 4.4 Test report were revised;
c) 4.5 Information to be given in the relevant specification was added;
d) 5.1 Preparation of the specimen was added;
e) 5.2 Procedure was revised;
f) 5.5 Information to be given in the relevant specification was added;
g) Figure 1 to Figure 5 were added.

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

Draft	Report on voting
46A/1745/FDIS	46A/1747/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 61196 series, published under the general title *Coaxial communication cables*, 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– withdrawn, or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.

1 Scope

This part of IEC 61196 applies to coaxial communication cables. It specifies the test methods to determine solderability and the resistance to soldering of inner and outer conductors of cables used in analogue and digital communication systems.

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

IEC 61196-1, *Coaxial communication cables - Part 1: Generic specification - General, definitions and requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61196-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org/
– ISO Online browsing platform: available at https://www.iso.org/obp

4 Solderability

4.1 Preparation of test specimen

Take a specimen with a recommended length of 150 mm ± 10 mm. The specimen preparation varies according to different solderability test objects, as shown in Figure 1 to Figure 3. The dimensions marked in the figures are recommended.

Dimensions in millimetres

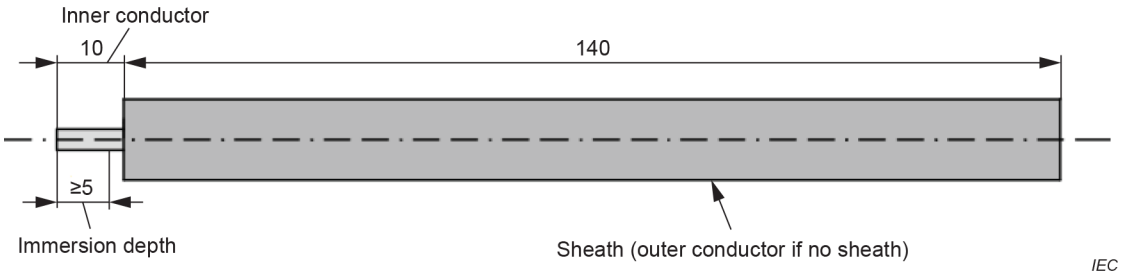


Figure 1 – Specimen preparation for inner conductor solderability