IEC 61196-1-303

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INTERNATIONAL STANDARD

colour inside

Coaxial communication cables –
Part 1-303: Mechanical test methods – Test for s[illegible]ve and tin plating thickness

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FOREWORD

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International Standard IEC 61196-1-303 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.

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

FDIS	Report on voting
46A/1348/FDIS	46A/1355/RVD

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This publication is to be read in conjunction with IEC 61196-1:2005.

A list of all the 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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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COAXIAL COMMUNICATION CABLES –

Part 1-303: Mechanical test methods – Test for silver and tin plating thickness

1 Scope

This part of IEC 61196 defines the requirements for measuring the plating thickness for silver and tin conductors for coaxial cables used in analogue and digital communication systems.

This test method uses a procedure for determining the plating thickness of silver and tin coatings on conductors by galvanic removal (coulometric 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 61196-1:2005, *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 terminological databases for use in standardization at the following addresses:

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

4 Procedure

4.1 Test equipment and method

The thickness of the silver or tin coating shall be measured with an electronic thickness tester.

In a conventional measuring equipment, the reading for the amount of coating is reduced to a time reading by metering with direct current. The voltage in the test sample changes significantly if the coating to be measured is completely removed. This voltage impulse is amplified and acts to terminate the measurement procedure.

The electronic tester measures the time for the removal of the silver or tin coating and is proportional to the average plating thickness.

4.2 Test solution

The test solution specified by the equipment manufacturer should be used.