

# INTERNATIONAL STANDARD



**Coaxial communication cables –**  
**Part 1-304: Mechanical test methods – Impact resistance**  
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IEC 61196-1-304:2011  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## COAXIAL COMMUNICATION CABLES –

Part 1-304: Mechanical test methods –  
Impact resistance

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International Standard IEC 61196-8 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

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

FDIS	Report on voting
46A/1038/FDIS	46A/1056/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.

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

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 publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,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

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## COAXIAL COMMUNICATION CABLES –

### Part 1-304: Mechanical test methods – Impact resistance

#### 1 Scope

This part of IEC 61196 details the method of test to determine the impact resistance of coaxial communication cables.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

#### 3 Terms and definitions (standards.iteh.ai)

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

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#### 4 Test method

##### 4.1 Sample

##### 4.1.1 Sample length

The sample length shall be sufficient to carry out the specified test as defined in the relevant sectional or detailed specification.

##### 4.1.2 Termination

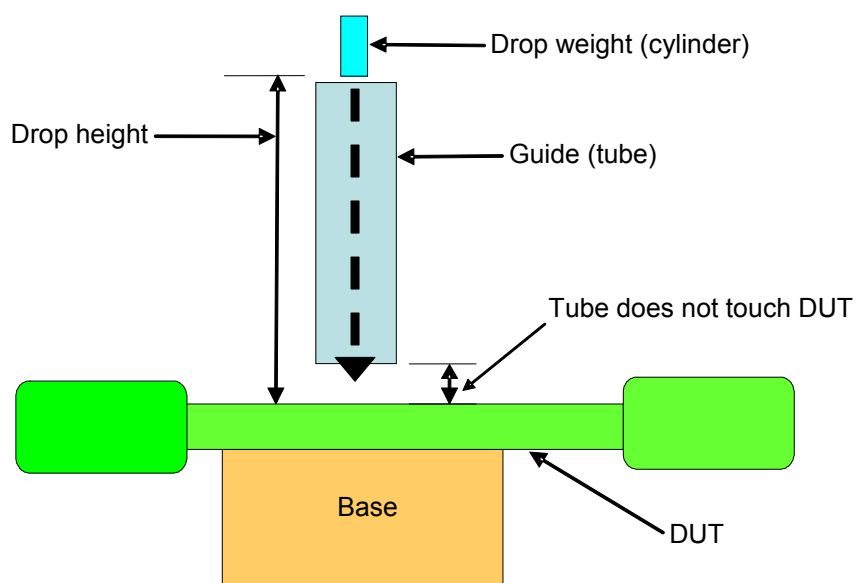
Unless otherwise specified in the relevant cable specification, the cable samples shall be terminated at each end in a connector, or in a manner such that the conductors, sheathings and any strain members are clamped together in a representative manner.

##### 4.2 Equipment

The apparatus shall subject the cable sample (DUT) to a specified impacted force while affixed to a flat base material that can withstand the impact as shown in Figure 1.

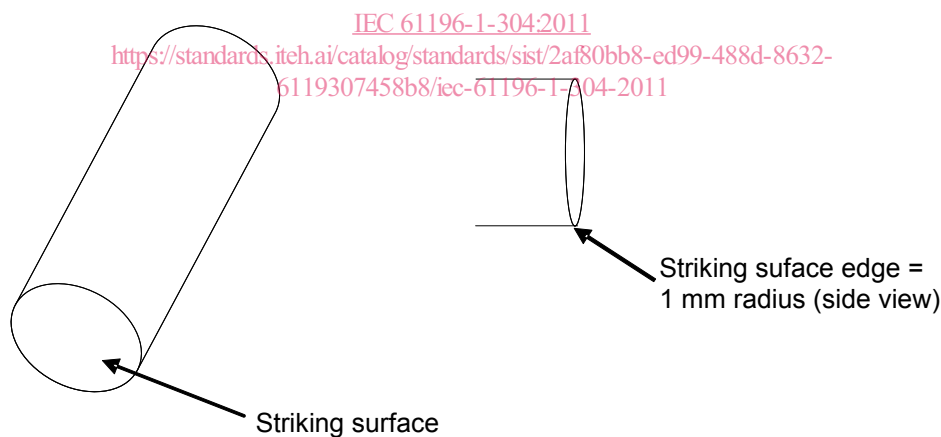
The drop weight shall be a brass or steel cylinder with a flat striking surface with a 1 mm radius around its edge as referenced in Figure 2. The diameter of the hammer shall be defined in the relevant cable specification.

The guide tube shall have an inside diameter large enough to allow free fall of the drop weight.



IEC 2552/11

**Figure 1 – Test setup**



IEC 2553/11

**Figure 2 – Drop weight**

#### 4.3 Procedure

The sample (DUT) shall be pre-conditioned to the test temperature as defined in the detailed specification.

The weight of the drop hammer and the height from which it falls shall be adjusted to give the value of impact energy shown in the detail specification. The test temperature, number of impacts and their location on the sample shall be as specified in the relevant cable specification.



## 5 Test report

The test report shall include

- number of impacts;
- drop weight;
- drop weight diameter;
- test temperature;
- location of impacts on the sample;
- sample length;
- relevant test data.

## 6 Requirements

The values shall fulfil the requirements of the relevant cable specification.

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