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**Communication cables - Specifications for test methods - Part 3-7: Mechanical test methods - Abrasion resistance of the cable sheath**

Communication cables - Specifications for test methods -- Part 3-7: Mechanical test methods - Abrasion resistance of the cable sheath

Kommunikationskabel - Spezifikationen für Prüfverfahren -- Teil 3-7: Mechanische Prüfverfahren - Abriebfestigkeit des Kabelmantels

Câbles de communication - Spécifications des méthodes d'essai -- Partie 3-7: Méthodes d'essais mécaniques - Résistance à l'abrasion des gaines du câble

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**Ta slovenski standard je istoveten z: EN 50289-3-7:2001**

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**ICS:**

33.120.10      Koaksialni kabli. Valovodi      Coaxial cables. Waveguides

**SIST EN 50289-3-7:2002**

**en**

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EUROPEAN STANDARD

**EN 50289-3-7**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2001

ICS 33.120.10

English version

**Communication cables -  
Specifications for test methods  
Part 3-7: Mechanical test methods -  
Abrasion resistance of the cable sheath**

Câbles de communication - Spécifications  
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Abriebfestigkeit des Kabelmantels

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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# CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 46X, Communication cables.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50289-3-7 on 2001-05-01.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2002-04-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2004-04-01

This European Standard has been prepared under the European Mandate M/212 given to CENELEC by the European Commission and the European Free Trade Association.

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## 1 Scope

This Part 3-7 of EN 50289 details the method of test to determine the abrasion resistance of the cable sheath used in analogue and digital communication systems.

It is to be read in conjunction with Part 3-1 of EN 50289, which contains essential provisions for its application.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 50289-3-1      2001      Communication cables - Specifications for test methods --  
Part 3-1: Mechanical test methods - General requirements

EN 50290-1-2<sup>1)</sup>      Communication cables -- Part 1-2: Definitions

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## 3 Definitions

For the purposes of this European Standard the definitions of EN 50290-1-2 apply.

[SIST EN 50289-3-7:2002](https://standards.iteh.ai/catalog/standards/sist/618b4e61-c84b-4c0f-91c8-28dd5e7049a2/sist-en-50289-3-7-2002)

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## 4 Test method

### 4.1 Equipment

The abrasion test rig consists of a device designed to abrade the surface of the cable in both directions parallel to the longitudinal axis of the cable over a length of 10 mm ± 1 mm at a frequency of 55 cycles/min ± 5 cycles/min. One cycle consists of one abrading edge movement in each direction.

The abrading edge shall be a steel needle with a diameter as specified in the relevant cable specification.

A typical apparatus is shown in Figure 1.

### 4.2 Test sample

The sample shall be of a length sufficient to carry out the test specified. A typical length is 750 mm.

1.1.1 \_\_\_\_\_

<sup>1)</sup> At draft stage.

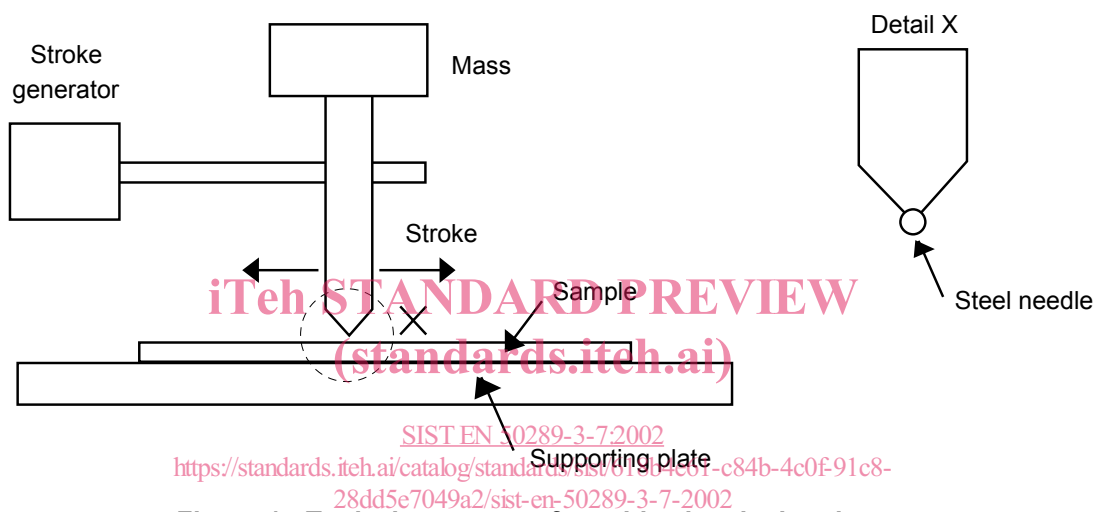
### 4.3 Procedure

Securely attach the cable sample, measuring approximately 750 mm in length, to the supporting plate by means of cable clamps. The abrading edge shall be loaded with the mass necessary to provide the force stated in the detail specification whilst avoiding shock on the cable.

Four tests shall be made on each sample, with the sample moved forwards 100 mm between tests while rotating it through an angle of 90°, always in the same direction.

### 4.4 Requirements

There shall be no perforation of the sheath after performing the number of cycles specified in the detail specification.



**Figure 1 - Typical test set-up for cable sheath abrasion test**

## 5 Test report

The test report shall include:

- number of cycles;
- diameter of needle;
- force applied;
- pass/fail criteria.