



SLOVENSKI STANDARD

SIST EN 50289-3-8:2014

01-januar-2014

Nadomešča:
SIST EN 50289-3-8:2002

Komunikacijski kabli - Specifikacije za preskusne metode - 3-8. del: Mehanske preskusne metode - Odpornost proti obrabi oznak na kabelskih plaščih

Communication cables - Specifications for test methods - Part 3-8: Mechanical test methods - Abrasion resistance of cable sheath markings

Kommunikationskabel - Spezifikationen für Prüfverfahren - Teil 3-8: Mechanische Prüfverfahren - Abriebfestigkeit der Markierung des Kabelmantels

Câbles de communication - Spécifications des méthodes d'essai - Partie 3-8: Méthodes d'essais mécaniques - Résistance à l'abrasion du marquage de la gaine

Ta slovenski standard je istoveten z: EN 50289-3-8:2013

ICS:

33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

SIST EN 50289-3-8:2014 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50289-3-8:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50289-3-8

October 2013

ICS 33.120.10

Supersedes EN 50289-3-8:2001

English version

**Communication cables -
Specifications for test methods -
Part 3-8: Mechanical test methods -
Abrasion resistance of cable sheath markings**

Câbles de communication -
Spécifications des méthodes d'essai -
Partie 3-8: Méthodes d'essais mécaniques
-
Résistance à l'abrasion du marquage de
la gaine

Kommunikationskabel -
Spezifikationen für Prüfverfahren -
Teil 3-8: Mechanische Prüfverfahren -
Abriebfestigkeit der Markierung des
Kabelmantels

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50289-3-8:2014](https://standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014)

<https://standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014>

This European Standard was approved by CENELEC on 2013-09-16. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Test method.....	4
4.1 Equipment	4
4.1.1 Method 1.....	4
4.1.2 Method 2.....	4
4.2 Test sample	4
4.3 Procedure	5
4.3.1 Method 1.....	5
4.3.2 Method 2.....	5
4.4 Requirements	5
5 Test report	6

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 50289-3-8:2014](https://standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014)

<https://standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014>

Foreword

This document (EN 50289-3-8:2013) was prepared by CLC/TC 46X "Communication cables".

The following dates are fixed:

- latest date by which this document has (dop) 2014-09-16
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2016-09-16
standards conflicting with this
document have to be withdrawn

This document supersedes EN 50289-3-8:2001.

The abrasion resistance test in EN 50289-3-8 has been amended to include the following elements:

- number of cycles: 50; force: 4 N; and needle diameter: 1 mm.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

EN 50289-3, *Communication cables — Specifications for test methods*, is divided into the following sub-parts:

- *Part 3-1: Mechanical test methods — General requirements;*
- *Part 3-2: Mechanical test methods — Tensile strength and elongation for conductor;*
- *Part 3-4: Mechanical test methods — Tensile strength, elongation and shrinkage of insulation and sheath;*
- *Part 3-5: Mechanical test methods — Crush resistance of the cable;*
- *Part 3-6: Mechanical test methods — Impact resistance of the cable;*
- *Part 3-7: Mechanical test methods — Abrasion resistance of the cable sheath;*
- *Part 3-8: Mechanical test methods — Abrasion resistance of cable sheath markings [the present document];*
- *Part 3-9: Mechanical test methods — Bending tests;*
- *Part 3-10: Mechanical test methods — Torsion and twisting;*
- *Part 3-11: Mechanical test methods — Cable cut-through resistance;*
- *Part 3-12: Mechanical test methods — Shot gun damage;*
- *Part 3-13: Mechanical test methods — Aeolian vibration;*
- *Part 3-15: Mechanical test methods — Underwater cable resistance to hydrostatic pressure;*
- *Part 3-16: Mechanical test methods — Cable tensile performance;*
- *Part 3-17: Mechanical test methods — Adhesion of dielectric and sheath.*

1 Scope

This European Standard details the method of test to determine the ability of the sheath markings of a finished cable used in analogue and digital communication systems to withstand abrasion.

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

Depending on the kind of marking and as indicated in the relevant cable specification, one of the following two methods will be used:

- Method 1: is suitable for rigid marking types like embossing, indenting and sintering;
- Method 2: is applicable to marking types other than embossing, indenting and sintering.

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.

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

EN 50290-1-2, *Communication cables — Part 1-2: Definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions of EN 50290-1-2 apply.

4 Test method

iTeh STANDARD PREVIEW
(standards.iteh.ai)

4.1 Equipment

4.1.1 Method 1

SIST EN 50289-3-8:2014

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 40 ± 1 mm at a frequency of 55 ± 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 of 1,0 mm or as specified in the detail specification

A typical apparatus is shown in Figure 1.

4.1.2 Method 2

The apparatus follows the intent of that specified in Method 1, with the needle replaced by a wiping felt. These changes are made in the apparatus:

- a) a test set-up, to apply a force to the wool felt; a typical example is shown in Figure 2;
- b) a wool felt, colour white;

NOTE Common felts are a blend of wool and other fibres, commonly rayon. Blends from 100% to 30% wool, or as specified by the relevant specification, meet the intent of this method.

- c) masses to apply a force to the sample;
- d) the apparatus shall allow a stroke length of 100 mm at a frequency of 6 to 12 cycles/min.

4.2 Test sample

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

4.3 Procedure

4.3.1 Method 1

Carry out the test with the sample mounted so that the marking is directly under the abrading edge. Load the abrading edge with the mass necessary to provide the 4N force specified in the relevant cable specification whilst avoiding shock on the cable.

- Unless otherwise specified, the conditions for testing shall be in accordance with standard atmospheric conditions, as defined in EN 50289-3-1.
- Securely attach the cable sample to the supporting plate by means of cable clamps. The abrading edge shall be loaded with 4 N whilst avoiding shock to the cable. The initial position shall be such that there is length available for the subsequent movement of the sample, per c) below.
- Carry out the test with the sample mounted so that the marking is directly under the abrading edge. Four tests shall be made on each sample.

4.3.2 Method 2

A sample of cable containing markings shall be laid between the two parts of the wool felt or between the wool felt and a supporting surface. In either case, the wool felt shall wipe the printed section of the cable.

The wool felt shall be thoroughly impregnated with water.

The normal force (F) of 5 N (or as given in the detail specification) shall be applied to the markings on the sample which is moved back and forth over a length of 100 mm.

Unless otherwise specified in the relevant detail specification, the number of cycles shall be 50.

4.4 Requirements

The marking shall be legible at the completion of the test after the number of cycles specified in the relevant cable specification.

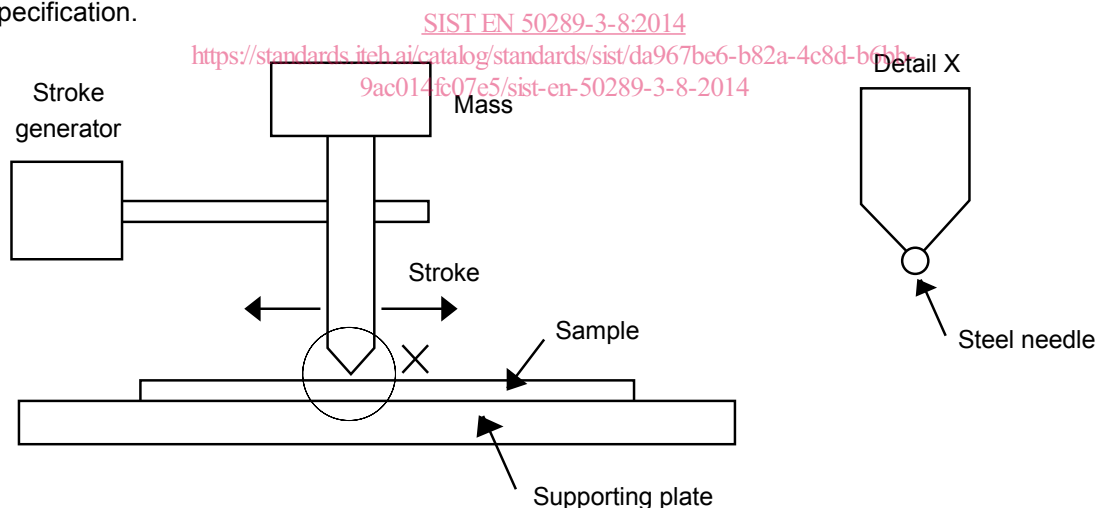


Figure 1 — Typical test set-up for method 1

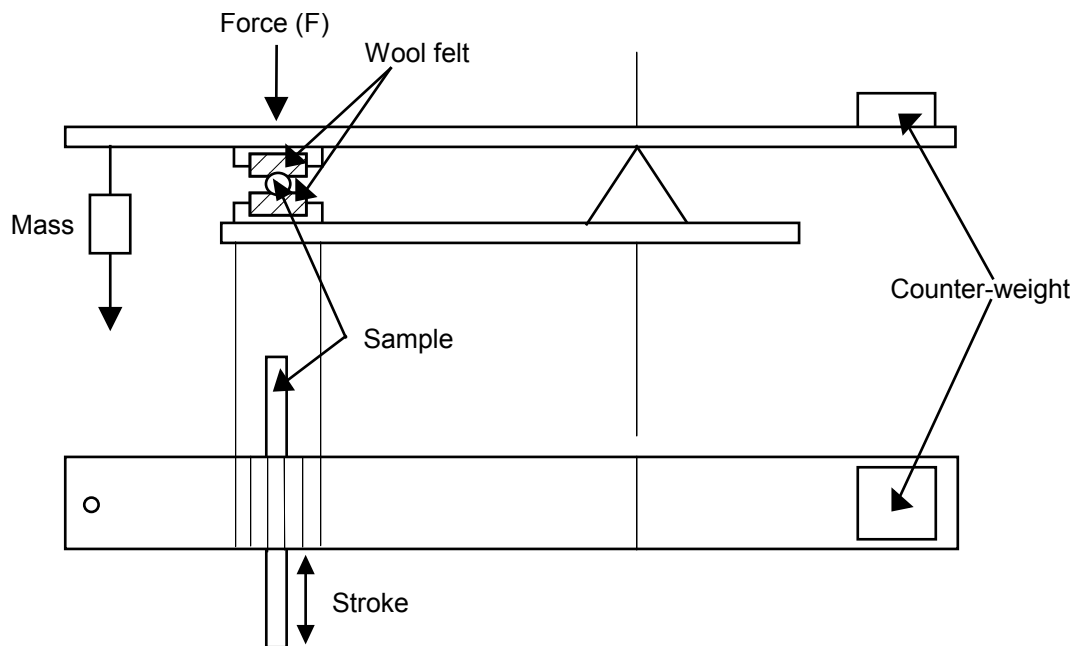


Figure 2 — Typical test set-up for method 2

5 Test report

The test report shall include:

- number of cycles (if not 50);
- method used;
- diameter of needle (if not 1 mm);
- force applied (if not 4 N);
- pass/fail criteria.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50289-3-8:2014](https://standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014)

standards.iteh.ai/catalog/standards/sist/da967be6-b82a-4c8d-b6bb-9ac014fc07e5/sist-en-50289-3-8-2014