



SLOVENSKI STANDARD
SIST EN 60626-2:1998

01-junij-1998

Combined flexible materials for electrical insulation - Part 2: Methods of test (IEC 60626-2:1995)

Combined flexible materials for electrical insulation -- Part 2: Methods of test

Flexible Mehrschichtisolierstoffe zur elektrischen Isolation -- Teil 2: Prüfverfahren

Matériaux combinés souples destinés à l'isolement électrique -- Partie 2: Méthodes d'essai

STANDARD PREVIEW
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Ta slovenski standard je istoveten z: EN 60626-2:1995

SIST EN 60626-2:1998
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ICS:

29.035.01	Izolacijski materiali na splošno	Insulating materials in general
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SIST EN 60626-2:1998

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60626-2

October 1995

ICS 29.040.20

Descriptors: Electrical insulating materials, solid electrical insulating materials, plastic films, flexible plastics, tests, thickness, grammage, tensile strength, elongation, edge tearing strength, electrical strength

English version

**Combined flexible materials for electrical insulation
Part 2: Methods of test
(IEC 626-2:1995)**

Matériaux combinés souples destinés à
l'isolement électrique
Partie 2: Méthodes d'essai
(CEI 626-2:1995)

Flexible Mehrschichtisolierstoffe zur
elektrischen Isolation
Teil 2: Prüfverfahren
(IEC 626-2:1995)

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This European Standard was approved by CENELEC on 1995-09-20. 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 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

The text of document 15C/478/DIS, future edition 2 of IEC 626-2, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60626-2 on 1995-09-20.

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) 1996-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1996-07-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 626-2:1995 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

Normative references to international publications
with their corresponding European publications

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).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 216-4-1	1990	Guide for the determination of thermal endurance properties of electrical insulating materials Part 4: Ageing ovens Section 1: Single-chamber ovens	HD 611.4.1 S1	1992
IEC 243-1 (mod)	1988	Methods of test for electric strength of solid insulating materials Part 1: Tests at power frequencies	HD 559.1 S1	1991
IEC 626-3	1988	Specification for combined flexible materials for electrical insulation Part 3: Specification for individual materials	-	-
ISO 536	1976	Paper and board Determination of grammage	-	-

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NORME
INTERNATIONALE
INTERNATIONAL
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CEI
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Deuxième édition
Second edition
1995-09

Matériaux combinés souples destinés
à l'isolement électrique –

Partie 2:
Méthodes d'essai

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Combined flexible materials for electrical
insulation –

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[d11111111111/sist-en-60626-2-1998](https://standards.iteh.ai/catalog/standards/sist/7a500799-0430-4a63-8ad7-d11111111111/sist-en-60626-2-1998)

Part 2:
Methods of test

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

M

Pour prix, voir catalogue en vigueur
For price, see current catalogue

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COMBINED FLEXIBLE MATERIALS
FOR ELECTRICAL INSULATION -**
Part 2: Methods of test

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

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International Standard IEC 626-2 has been prepared by sub-committee 15C: Specifications, of IEC technical committee 15: Insulating materials.

This second edition cancels and replaces the first edition published in 1978 and constitutes a technical revision.

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

DIS	Report on voting
15C/478/DIS	15C/566/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.

INTRODUCTION

This International standard is one of a series which deals with combined flexible materials consisting of two or more different insulating materials laminated together. The components of flexible combined materials are polymer film and fibrous sheet material. Typical fibrous sheet materials include, but are not limited to: dry-laid non-woven, wet-laid non-woven (e.g., paper), and woven fabric. The non-woven may or may not be treated by mechanical, chemical, hydraulic or thermal processing to alter characteristics. The fibrous material may or may not be impregnated with a resin. This standard does not include materials based on mica paper, neither does it deal with combined materials in which one of the components is deliberately left in the B-stage. The series has three parts describing:

Part 1: Definitions and general requirements (IEC 626-1)

Part 2: Methods of test (IEC 626-2)

Part 3: Specifications for individual materials (IEC 626-3)

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COMBINED FLEXIBLE MATERIALS FOR ELECTRICAL INSULATION –

Part 2: Methods of test

1 General

1.1 Scope

This International Standard states the requirement relating to the test methods for combined flexible materials for electrical insulation.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 626. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 626 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards. In the event of dispute, the referenced editions shall be used.

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IEC 216-4-1:1990, *Guide for the determination of thermal endurance properties of electrical insulating materials - Part 4: Ageing ovens – Section 1: Single chamber*

[SIST EN 60626-2:1998](https://standards.iteh.ai/catalog/standards/sist/7a500799-0430-4a63-8ad7-89256697683/sist-en-60626-2-1998)

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IEC 243-1:1988, *Methods of test for electric strength of solid insulating materials – Part 1: Tests at power frequencies*

IEC 626-3:1988, *Specification for combined flexible materials for electrical insulation – Part 3: Specifications for individual materials*

ISO 536:1986, *Paper and board – Determination of grammage*

1.3 General requirements on tests

Unless otherwise specified, the test specimens, after being cut, shall be conditioned for 24 h at $(23 \pm 2) ^\circ\text{C}$ and $(50 \pm 5) \%$ relative humidity. If the test is not conducted in this standard atmosphere, the test shall be made within 5 min after removal from the standard atmosphere.

2 Thickness

2.1 Test apparatus

2.1.1 An external screw type micrometer having measuring faces of 6 mm to 8 mm diameter. The measuring faces shall be flat to within 0,001 mm and parallel to within 0,003 mm. The pitch of the screw shall be 0,5 mm and the graduations shall be 50 divisions of 0,01 mm, enabling readings to be estimated to 0,002 mm.

The pressure exerted on the specimens shall be 100 kPa as described in 2.1.2.

2.1.2 A dead-weight dial type micrometer having two ground and lapped concentric circular surfaces flat to within 0,001 mm and parallel to within 0,003 mm. The upper surface shall be 6 mm to 8 mm in diameter. The lower surface shall be larger than the upper one. The upper surface shall move on the axis perpendicular to the surfaces. The dial shall be graduated to read directly to 0,002 mm. The frame of the micrometer shall be of such rigidity that a force of 15 N applied to dial housing, out of contact with either the weight or the presser foot spindle, will produce a deflection of the frame not greater than 0,002 mm as indicated on the micrometer dial. The pressure exerted on the specimen shall be 100 kPa.

2.1.3 The setting gauge used to check the instruments shall be accurate to within $\pm 0,001$ mm of the nominal size. The indicated thickness by the instruments shall not differ by more than 0,005 mm from the gauge block.

NOTE - For materials with high compressibility and special structure, other values for the area and the pressure of the measuring faces may be specified.

2.2 Test specimens

In the "as received" condition.

2.2.1 Full width and sheet material

Full width material delivered on rolls or sheet material cut to length. One specimen 25 mm wide and whose length is equal to the width of the roll or sheet shall be cut across the entire width of the material.

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2.2.2 Slit material (tape) [d9323eb97083/sist-en-60626-2-1998](https://standards.iteh.ai/catalog/standards/sist/7a500799-0430-4a63-8ad7-d9323eb97083/sist-en-60626-2-1998)

One specimen 1 m long shall be cut from the roll.

2.3 Procedure

Measure the thickness of the material, when not constrained in any way, at nine points spaced not less than 75 mm apart along the length of the test specimens. All joins (or splices) shall be excluded from the area of the test.

2.4 Results

The values of the nine measurements shall be recorded. The central value is taken as the thickness of the material.

3 Substance (weight per unit area or grammage)

Because of the electrical engineering practice of using the word substance, this has been used here. The substance of combined materials shall be measured in accordance with the method described in ISO 536, with the following exceptions:

- clauses 5 and 6 of ISO 536 are ignored;