SLOVENSKI STANDARD
SIST EN 60626-3:1998/A1:2001

01-marec-2001

Combined flexible materials for electrical insulation - Part 3: Specifications for individual materials - Amendment A1 (IEC 60626-3:1996/A1:1999)

Combined flexible materials for electrical insulation -- Part 3: Specifications for individual materials

Flexible Mehrschichtisolierstoffe zur elektrischen Isolation -- Teil 3: Bestimmungen für einzelne Materialien

Matériaux combinés souples destinés à l'isolement électrique -- Partie 3: Spécifications pour matériaux particuliers

Ta slovenski standard je istoveten z: **EN 60626-3:1996/A1:1999**

ICS:

29.035.01	Izolacijski materiali na splošno	Insulating materials in general

SIST EN 60626-3:1998/A1:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60626-3/A1

August 1999

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English version

Combined flexible materials for electrical insulation
Part 3: Specifications for individual materials
(IEC 60626-3:1996/A1:1999)

Matériaux combinés souples destinés à l'isolement électrique
Partie 3: Spécifications pour matériaux particuliers
(CEI 60626-3:1996/A1:1999)

Flexible Mehrschichtisolierstoffe zur elektrischen Isolation
Teil 3: Bestimmungen für einzelne Materialien
(IEC 60626-3:1996/A1:1999)

This amendment A1 modifies the European Standard EN 60626-3:1996; it was approved by CENELEC on 1999-08-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Czech Republic, 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/1037/FDIS, future amendment 1 to IEC 60626-3, 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 amendment A1 to EN 60626-3:1996 on 1999-08-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2000-05-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2002-08-01

Endorsement notice

The text of amendment 1:1999 to the International Standard IEC 60626-3:1996 was approved by CENELEC as an amendment to the European Standard without any modification.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60626-3

1996

AMENDEMENT 1
AMENDMENT 1
1999-06

Amendement 1

Matériaux combinés souples destinés à l'isolement électrique –

Partie 3: Spécifications pour matériaux particuliers

Amendment 1

Combined flexible materials for electrical insulation –

Part 3: Specifications for individual materials

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FOREWORD

This amendment has been prepared by subcommittee 15C: Specifications, of IEC technical committee 15: Insulating materials.

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

FDIS	Report on voting
15C/1037/FDIS	15C/1045/RVD

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

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INTRODUCTION

Replace, in the last paragraph, the first line by the following:

This standard contains 31 of the sheets comprising part 3, as follows:

Insert, in the list of sheets, the following new numbers, after sheet 330:

340, 350, 351, 360, 400, 401, 402, 403, 410, 411, 420, 421.

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Table 1 – Master listing for IEC 60626-3 sheet identification

Replace, in the table, the line "340 to 399 Others" *by the following*:

340 to 349	Duplex hybrid organic-inorganic with PET film
350 to 359	Triplex hybrid organic-inorganic with PET film
360 to 369	Triplex hybrid organic-inorganic with filled glass paper
370 to 399	Others

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Add, after sheet 330, the following new sheets:

340, 350, 351, 360, 400, 401, 402, 403, 410, 411, 420, 421.

SHEET 340

Requirements for combined flexible duplex materials of two layers – P-H/F-PET (hybrid inorganic-organic paper with PET film)

1 Description

This sheet gives the requirements for duplex materials consisting of one layer of insulating paper (P-H) laminated on a polyethylene terephthalate film (F-PET).

2 Thermal classification

Experience has shown that the combined flexible materials listed in this sheet may be suitable for use in electrical apparatus with ratings up to and including the temperature range of 130 °C to 155 °C.

3 Single-layer requirements

Use hybrid inorganic-organic paper which meets the requirements of IEC 60819-1 and IEC 60819-3.

Use a PET film which meets the requirements of IEC 60674-1 and IEC 60674-3-2.

4 Additional requirements

Additional requirements are given in the table below.

Property	Clause in IEC 60626-2	Units Tolerance				
Laminate nominal thickness	2	mm	0,10	0,15	0,18	0,21
Laminate thickness tolerance	2	± %	15	15	15	15
Laminate nominal grammage	3	g/m^2 ±15 %	135	180	215	250
Film nominal thickness		µm	23	23	50	23
Unfolded tensile strength	4	N/10 mm minimum				
		MD	115	135	230	155
		CD	Under consideration			
Folded tensile strength	4	N/10 mm minimum				
		MD	Under consideration			
		CD	Under consideration			
Elongation unfolded	4	% minimum				
		MD	7	7	11	13
		CD	Under consideration			
Electric breakdown voltage, 6 mm diameter electrodes	9	kV minimum				
		Unfolded	4	4	6,5	4
		Folded	Under consideration			

NOTES

MD: machine direction

CD: cross machine direction

SHEET 350

Requirements for combined flexible triplex materials of three layers – P-H/F-PET/P-H (75 µm hybrid inorganic-organic paper on both sides of PET film)

1 Description

This sheet gives the requirements for triplex materials consisting of a layer of insulating paper (P-H) having a nominal thickness of 75 µm, laminated on both sides of a polyethylene terephthalate film (F-PET).

2 Thermal classification

Experience has shown that the combined flexible materials listed in this sheet may be suitable for use in electrical apparatus with ratings up to and including the temperature range of 155 °C to 180 °C.

3 Single-layer requirements

Use hybrid inorganic-organic paper of a nominal thickness of 75 µm, which meets the requirements of IEC 60819-1 and IEC 60819-3.

Use a PET film which meets the requirements of IEC 60674-1 and IEC 60674-3-2.

4 Additional requirements

Additional requirements are given in the table below.

Property	Clause in IEC 60626-2	Units Tolerance						
Laminate nominal thickness	2	mm	0,18	0,23	0,28	0,34	0,41	0,51
Laminate thickness tolerance	2	± %	15	15	15	15	15	15
Laminate nominal grammage	3	g/m^2 ±15 %	255	295	365	455	530	670
Film nominal thickness		µm	23	75	125	190	250	350
Unfolded tensile strength	4	N/10 mm minimum						
		MD	135	290	385	540	655	770
		CD	Under consideration					
Folded tensile strength	4	N/10 mm minimum						
		MD	Under consideration					
		CD	Under consideration					
Elongation unfolded	4	% minimum						
		MD	7	7	7	7	7	7
		CD	Under consideration					
Electric breakdown voltage, 6 mm diameter electrodes	9	kV minimum						
		Unfolded	4	8,5	12	13	15	15
		Folded	Under consideration					
NOTES MD: machine direction CD: cross machine direction								

SHEET 351

Requirements for combined flexible triplex materials of three layers – P-H/F-PET/P-H (125 µm hybrid inorganic-organic paper on both sides of PET film)

1 Description

This sheet gives the requirements for triplex materials consisting of a layer of insulating paper (P-H) having a nominal thickness of 125 µm, laminated on both sides of a polyethylene terephthalate film (F-PET).

2 Thermal classification

Experience has shown that the combined flexible materials listed in this sheet may be suitable for use in electrical apparatus with ratings up to and including the temperature range of 155 °C to 180 °C.

3 Single-layer requirements

Use hybrid inorganic-organic paper of a nominal thickness of 125 µm, which meets the requirements of IEC 60819-1 and IEC 60819-3.

Use a PET film which meets the requirements of IEC 60674-1 and IEC 60674-3-2.

4 Additional requirements

Additional requirements are given in the table below.

Property	Clause in IEC 60626-2	Units Tolerance					
Laminate nominal thickness	2	mm	0,28	0,30	0,33	0,38	0,51
Laminate thickness tolerance	2	± %	15	15	15	15	15
Laminate nominal grammage	3	g/m^2 ±15 %	325	355	395	455	630
Film nominal thickness		µm	23	50	75	125	250
Unfolded tensile strength	4	N/10 mm minimum					
		MD	135	230	290	425	695
		CD	Under consideration				
Folded tensile strength	4	N/10 mm minimum					
		MD	Under consideration				
		CD	Under consideration				
Elongation unfolded	4	% minimum					
		MD	7	7	7	7	7
		CD	Under consideration				
Electric breakdown voltage, 6 mm diameter electrodes	9	kV minimum					
		Unfolded	4	7	8,5	12	15
		Folded	Under consideration				
NOTES MD: machine direction CD: cross machine direction							