

SLOVENSKI STANDARD

SIST EN 60684-3-100 to 105:2002

01-oktober-2002

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SIST HD 523.3.100 to 105 S1:1998

Flexible insulating sleeving - Part 3: Specifications for individual types of sleeving - Sheets 100 to 105: Extruded PVC sleeving (IEC 60684-3-100 to 105:2001)

Flexible insulating sleeving -- Part 3: Specifications for individual types of sleeving --
Sheets 100 to 105: Extruded PVC sleeving

Isolierschläuche -- Teil 3: Anforderungen für einzelne Schlauchtypen -- Blätter 100 bis
105: Extrudierte PVC-Schläuche

Gaines isolantes souples -- Partie 3: Spécifications pour types particuliers de gaines --
Feuilles 100 à 105: Gaines en PVC extrudé

Ta slovenski standard je istoveten z: **EN 60684-3-100 to 105:2001**

ICS:

29.035.20 Úlæ cã } ã Á { ^ } ã [| æ ã \ ã Plastics and rubber insulating
{ æ ^ | ã ã materials

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EUROPEAN STANDARD

EN 60684-3-100 to 105

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2001

ICS 29.035.20

Supersedes HD 523.3.100 to 105 S1:1990

English version

Flexible insulating sleeving
Part 3: Specifications for individual types of sleeving
Sheets 100 to 105: Extruded PVC sleeving
 (IEC 60684-3-100 to 105:2001)

Gaines isolantes souples
 Partie 3: Spécifications pour types
 particuliers de gaines
 Feuilles 100 à 105: Gaines en
 PVC extrudé
 (CEI 60684-3-100 à 105:2001)

Isolierschläuche
 Teil 3: Bestimmungen für einzelne
 Schlauchtypen
 Blätter 100 bis 105: Extrudierte
 PVC-Schläuche
 (IEC 60684-3-100 bis 105:2001)

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This European Standard was approved by CENELEC on 2001-09-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, 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/1214/FDIS, future edition 2 of IEC 60684-3-100 to 105, 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 60684-3-100 to 105 on 2001-09-01.

This European Standard supersedes HD 523.3.100 to 105 S1:1990.

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) 2002-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-09-01

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 60684-3-100 to 105:2001 was approved by CENELEC as a European Standard without any modification.

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INTRODUCTION

This standard is one of a series which deals with flexible insulating sleeving for electrical purposes.

The series consists of three parts:

- Part 1: Definitions and general requirements (IEC 60684-1);
- Part 2: Methods of test (IEC 60684-2);
- Part 3: Specifications for individual types of sleeving (IEC 60684-3).

This standard gives six of the sheets comprising Part 3 as follows:

- Sheet 100: Extruded PVC sleeving – General purpose grade – Bilateral tolerances
- Sheet 101: Extruded PVC sleeving – High temperature grade – Bilateral tolerances
- Sheet 102: Extruded PVC sleeving – Low temperature grade – Bilateral tolerances
- Sheet 103: Extruded PVC sleeving – General purpose grade – Unilateral tolerances
- Sheet 104: Extruded PVC sleeving – High temperature grade – Unilateral tolerances
- Sheet 105: Extruded PVC sleeving – Low temperature grade – Unilateral tolerances

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FLEXIBLE INSULATING SLEEVING –

Part 3: Specifications for individual types of sleeving – Sheets 100 to 105: Extruded PVC sleeving

1 Scope

This standard gives the requirements for three types of non-heatshrinkable sleeving, extruded from PVC.

Sleeving of this type is normally available with an internal diameter up to 50 mm and in a range of wall thicknesses between 0,2 mm and 1,8 mm.

Each sheet covers up to three levels of wall thickness, "thin wall", "standard wall" and "thick wall" related to nominal internal diameter and with corresponding differences in requirements for breakdown voltage.

Sheets 100 and 103 cover sleeving having a temperature range of –10 °C to 90 °C.

Sheets 101 and 104 cover sleeving having a temperature range of –10 °C to 105 °C.

Sheets 102 and 105 cover sleeving having a temperature range of –40 °C to 70 °C.

These sleeveings are normally available in the following opaque colours:

black, brown, red, orange, yellow, green, blue, violet, grey, white, pink, turquoise and green/yellow.

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They are also available in a transparent, translucent and non-coloured form.

Sizes and colours other than those specifically listed in this standard may be available as custom items. These items shall be considered to comply with this standard if they comply with the other property requirements listed in table 5.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60684. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60684 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60068-2-10:1988, *Environmental testing – Part 2: Tests. Test J and guidance: Mould growth*

IEC 60684-1:1980, *Specification for flexible insulating sleeving – Part 1: Definitions and general requirements*

IEC 60684-2:1997, *Flexible insulating sleeving – Part 2: Methods of test*

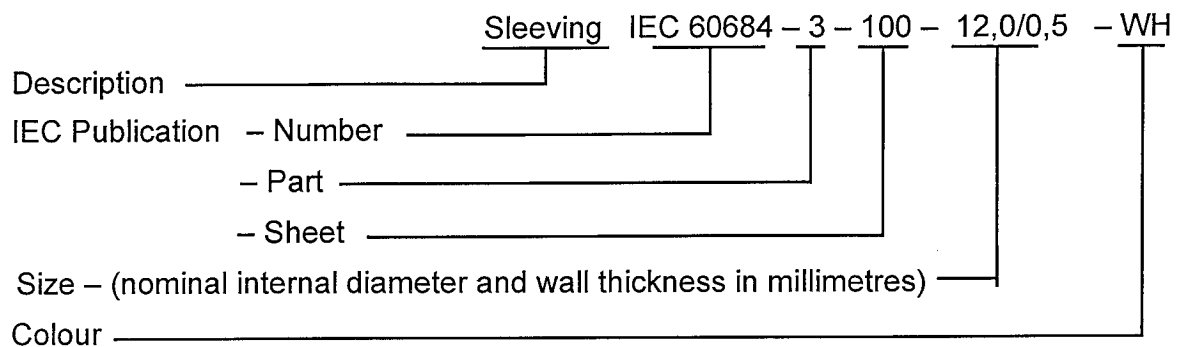
IEC 60757:1983, *Code for designation of colours*

ISO 182-1:1990, *Plastics – Determination of the tendency of compounds and products based on vinyl chloride homopolymers and copolymers to evolve hydrogen chloride and any other acidic products at elevated temperatures – Part 1: Congo red method*

ISO 188:1998, *Rubber, vulcanized or thermoplastic – Accelerated ageing and heat resistance tests*

3 Designation

The sleeving shall be identified by the following designation:



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Any abbreviation used for colour shall comply with IEC 60757 where applicable. The abbreviation for transparent shall be "TT", translucent shall be "TL" and non-coloured "NC". Non-standard colours shall be written out in full.

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4 Requirements

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In addition to the general requirements given in IEC 60684-1, the sleeving shall comply with the requirements in tables 1, 2, 3, 4, 5, 6 and 8.

5 Product qualification

Product qualification shall normally be based on results from 10 mm internal diameter black sleeving.

Colour and colour fastness to light shall be qualified for all colours.

Table 1 – Dimensions –
Sheets 100 and 101

Nominal internal diameter mm	Tolerance on internal diameter mm ±	Thin wall		Standard wall		Thick wall	
		Wall thickness mm		Wall thickness mm		Wall thickness mm	
		Nominal	Tolerance ±	Nominal	Tolerance ±	Nominal	Tolerance ±
0,3	0,10	0,3	0,1	0,4	0,1	0,5	0,1
0,5	0,10	0,3	0,1	0,4	0,1	0,5	0,1
0,8	0,10	0,3	0,1	0,4	0,1	0,5	0,1
1,0	0,15	0,3	0,1	0,4	0,1	0,5	0,1
1,5	0,15	0,3	0,1	0,4	0,1	0,5	0,1
2,0	0,15	0,3	0,1	0,4	0,1	0,5	0,1
2,5	0,15	0,3	0,1	0,4	0,1	0,5	0,1
3	0,15	0,3	0,1	0,4	0,1	0,5	0,1
4	0,25	0,3	0,1	0,5	0,1	0,6	0,1
5	0,25	0,3	0,1	0,5	0,1	0,6	0,1
6	0,25	0,3	0,1	0,5	0,1	0,6	0,1
8	0,25	0,5	0,1	0,7	0,1	0,8	0,15
10	0,5	0,5	0,1	0,7	0,1	0,8	0,15
12	0,5	0,5	0,1	0,7	0,1	0,8	0,15
16	0,5	0,5	0,1	0,85	0,15	1,2	0,2
20	0,5	0,5	0,1	0,85	0,15	1,2	0,2
25	0,5	0,5	0,1	0,85	0,15	1,2	0,2
30	0,5			0,85	0,15	1,2	0,2
40	1,0			0,85	0,15	1,35	0,25
50	1,0			0,85	0,15	1,55	0,25

Table 2 – Dimensions –
Sheet 102

Nominal internal diameter	Tolerance on internal diameter	Thin wall		Standard wall		Thick wall	
		Wall thickness mm		Wall thickness mm		Wall thickness mm	
		Nominal	Tolerance ±	Nominal	Tolerance ±	Nominal	Tolerance ±
0,5	0,10	0,3	0,1	0,4	0,1	0,5	0,1
0,8	0,10	0,3	0,1	0,4	0,1	0,5	0,1
1,0	0,15	0,3	0,1	0,4	0,1	0,5	0,1
1,5	0,15	0,3	0,1	0,4	0,1	0,5	0,1
2,0	0,15	0,3	0,1	0,4	0,1	0,5	0,1
2,5	0,15	0,3	0,1	0,4	0,1	0,5	0,1
3	0,15	0,3	0,1	0,4	0,1	0,5	0,1
4	0,25	0,3	0,1	0,5	0,1	0,6	0,1
5	0,25	0,3	0,1	0,5	0,1	0,6	0,1
6	0,25	0,3	0,1	0,5	0,1	0,6	0,1
8	0,25	0,5	0,1	0,7	0,1	0,8	0,15
10	0,5	0,5	0,1	0,7	0,1	0,8	0,15
12	0,5	0,5	0,1	0,7	0,1	0,8	0,15
16	0,5	0,5	0,1	0,85	0,15	1,2	0,2
20	0,5	0,5	0,1	0,85	0,15	1,2	0,2
25	0,5	0,5	0,1	0,85	0,15	1,2	0,2
30	0,5			0,85	0,15	1,25	0,2
40	1,0			0,85	0,15	1,35	0,25
50	1,0			0,85	0,15	1,55	0,25