SLOVENSKI STANDARD

SIST HD 523.3.406 to 408 S1:1998

01-junij-1998

Specification for flexible insulating sleeving - Part 3: Specification requirements for individual types of sleeving - Sheets 406 to 408: Glass textile sleeving PVC based coating (IEC 60684-3-406 to 408:1988)

Specification for flexible insulating sleeving -- Part 3: Specification requirements for individual types of sleeving -- Sheets 406 to 408: Glass textile sleeving with PVC based coating

Bestimmung für Isolierschläuche -- Teil 3: Bestimmungen für einzelne Schlauchtypen -- Blätter 406 bis 408: Glasfilament-Textilschläuche mit Beschichtung auf PVC-Basis

Spécification pour gaines isolantes souples -- Partie 3: Spécifications particulières aux types particuliers de gaines -- Feuilles 406 à 408: Gaines en fibre de verre tissées, avec revêtement PVC

Ta slovenski standard je istoveten z: **HD 523.3.406 to 408 S1:1990**

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CENELEC
Rue Bréderode 2, Bte 5 - 1000 BRUXELLES
Tél.: (+32.2)519 68 71 - Télex: 26257 Cenlec b
Fax (+32 2)519 68 19 - Teletex: 206 2210097 CENCEL

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SPECIFICATION FOR FLEXIBLE INSULATING SLEEVING PART 3: SPECIFICATION REQUIREMENTS FOR INDIVIDUAL TYPES OF SLEEVING SHEETS 406 TO 408 : GLASS TEXTILE SLEEVING WITH PVC BASED COATING

Spécification pour gaines isolantes souples
Troisième partie: Spécifications particulières aux types particuliers de gaines
Feuilles 406 à 408 : Gaines en fibre de verre tissées, avec revêtement PVC

Bestimmung für flexible Isolierschläuche
Teil 3: Technische Lieferbedingungen für einzelne Schlauchtypen
Blätter 406 bis 408: Glasfilament-Textilschläuche mit Beschichtung auf PVC-Basis

BODY OF THE HD

The Harmonization Document consists of:

- IEC 684-3-406 to 408 (1988) ed 1; IEC/SC 15C, not appended

This Harmonization Document was approved by CENELEC on 1989-12-05.

The English and French versions of this Harmonization Document are provided by the text of the IEC publication and the German version is the official translation of the IEC text.

According to the CENELEC Internal Regulations the CENELEC member National Committees are bound:

to announce the existence of this Harmonization Document at national level by or before 1990-03-01

to publish their new harmonized national standard by or before 1990-09-01

to withdraw all conflicting national standards by or before 1990-09-01.

Harmonized national standards are listed on the HD information sheet, which is available from the CENELEC National Committees or from the CENELEC Central Secretariat.

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

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NORME INTERNATIONALE
INTERNATIONAL STANDARD

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IEC
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à/to
40

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International Electrotechnical Commission
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1988

Spécification pour gaines isolantes souples

Troisième partie: Spécifications particulières aux types particuliers de gaines
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Specification for flexible insulating sleeving

Part 3: Specification requirements for individual types of sleeving
Sheets 406 to 408: Glass textile sleeving with PVC based coating

Bureau Central de la Commission Electrotechnique Internationale 3, rue de Varembé Genève, Suisse

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR FLEXIBLE INSULATING SLEEVING

Part 3: Specification requirements for individual types of sleeving Sheets 406 to 408: Glass textile sleeving with PVC based coating

FOREWORD

1) 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.

2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.

3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

PREFACE

This standard has been prepared by Sub-Committee 15C: Specifications, of IEC Technical Committee No. 15: Insulating materials.

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

Six Months' Rule	Report on Voting
15C(CO)199	15C(CO)218

Full information on the voting for the approval of this standard can be found in the Voting Report indicated in the above table.

The following IEC publication is quoted in this standard:

Publication No. 757 (1983): Code for designation of colours.

SPECIFICATION FOR FLEXIBLE INSULATING SLEEVING

Part 3: Specification requirements for individual types of sleeving Sheets 406 to 408: Glass textile sleeving with PVC based coating

INTRODUCTION

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

— Part 1: Definitions and General Requirements (IEC Publication 684-1);

— Part 2: Methods of Test (IEC Publication 684-2);

— Part 3: Specification Requirements for Individual Types of Sleeving (IEC Publication 684-3).

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

— Sheet 406: Glass textile sleeving with PVC based coating: high breakdown strength;

— Sheet 407: Glass textile sleeving with PVC based coating: medium breakdown strength;

— Sheet 408: Glass textile sleeving with PVC based coating: lower breakdown strength;

1. Scope

This sheet gives requirements for E type glass sleeving using either braided or knitted construction with a continuous flexible coating based on polyvinyl chloride (PVC) or its co-polymers or blends thereof.

The sleeving is normally available in bore sizes 0.3 mm to 25 mm and in the following colours:

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

2. Designation

The sleeving shall be identified by one of the following means:

a) in words and numbers;

b) by the designation which follows;

c) by both the above.

IEC 684-3-406 (or 407 or 408)-nominal bore size in millimetres with suffix* indicating tolerance type — colour.

In those cases where the designation is required to differentiate between sleeving which is braided and sleeving which is knitted, the appropriate word shall be added at the end of the designation.

The addition of "x" at the end of the designation indicates that the special requirement in Table III has been specified and included in the purchase contract.

For example: IEC 684-3-406-1.5 U-black-braided-x.

Any abbreviation used for colour shall comply with IEC Publication 757.

3. Requirements

Sleeving shall comply with the general requirements given in IEC Publication 684-1, and in addition, the labelling shall indicate whether the construction of the sleeving is knitted or braided.

Sleeving shall comply with the dimensional requirements in Table I and with the other requirements in Table II. In cases where the purchase contract specifies a test for mould growth the requirements of Table III shall also be met.

4. Thermal classification

Experience of product performance indicates that sleeving of types 406 and 407 may be suitable for inclusion in systems for operation up to 105 °C.

* "B" indicates bilateral and "U" indicates unilateral tolerance.

TABLE I

Dimensional requirements

Nominal bore diameter (mm)	Tolerance on bore diameter (mm)		Wall thickness (mm)					
	Bilateral	Unilateral (+)	Sheet 406		Sheet 407		Sheet 408	
			Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
0.3	±0.05	0.10	0.20	0.30	0.15	0.30	0.10	0.30
0.5	±0.10	0.20	0.25	0.50	0.20	0.50	0.15	0.50
0.8	±0.10	0.20	0.25	0.50	0.20	0.50	0.15	0.50
1.0	±0.15	0.30	0.25	0.90	0.20	0.75	0.15	0.75
1.5	±0.15	0.30	0.35	0.90	0.20	0.75	0.15	0.75
2.0	±0.20	0.40	0.35	0.90	0.20	0.75	0.15	0.75
2.5	±0.20	0.40	0.40	0.90	0.20	0.75	0.15	0.75
3.0	±0.25	0.50	0.40	0.90	0.20	0.75	0.15	0.75
4.0	±0.25	0.50	0.50	0.90	0.30	0.75	0.20	0.75
5.0	±0.25	0.50	0.50	0.90	0.30	0.75	0.20	0.75
6.0	±0.25	0.50	0.50	0.90	0.30	0.75	0.20	0.75
8.0	±0.50	1.0	0.50	1.20	0.30	0.90	0.20	0.75
10.0	±0.50	1.0	0.65	1.20	0.40	0.90	0.40	0.75
12.0	±0.50	1.0	0.65	1.20	0.40	0.90	0.40	0.75
16.0	±0.50	1.0	0.65	1.20	0.40	0.90	0.40	0.75
20.0	±0.50	1.0	0.65	1.20	0.40	0.90	0.40	0.75
25.0	±0.50	1.0	0.65	1.20	0.40	0.90	0.40	0.75

Notes 1. — Measurements should be made to the nearest 0.05 mm.

2. — The required form of tolerance should be indicated as described in Clause 2.

TABLE II

Requirements

Property	Publication 684-2 Clause	Units	Maximum or minimum	Requirements			Remarks
				Sheet 406	Sheet 407	Sheet 408	
Resistance to soldering heat	7	—	—	Pass	Pass	Pass	Only for sleeving having nominal bore diameter up to and including 5 mm
Bending after heating	13	—	—	No cracking or detachment of coating shall be visible	No cracking or detachment of coating shall be visible	No cracking or detachment of coating shall be visible	Test temperature: 130 ± 2 °C Exposure time: 96 ± 1 h Mandrel diameters are given in Table IV
Bending at low temperature	14	—	—	No cracking or detachment of coating shall be visible	No cracking or detachment of coating shall be visible	No cracking or detachment of coating shall be visible	Test temperature not above −25 °C Mandrel diameters are given in Table IV
Breakdown voltage	21	kV	Min.	See Table V	See Table V	See Table V	
Insulation resistance	22	MΩ	Min.				
At room temperature	22.4.2			10^3	10^3	—	
After damp heat	22.4.4			10^2	10^2	—	
Flame propagation	26 Method A or Method B	s	Max.	60	60	60	In addition, the indicator flag on any one of the three test specimens shall not be burned nor shall flaming or glowing particles or flaming drops ignite the cotton

TABLE III

Special requirements

Property	Publication 684-2 Clause	Units	Maximum or minimum	Requirements			Remarks
				Sheet 406	Sheet 407	Sheet 408	
Mould growth	Appendix B	—	—	Scale 1	Scale 1	Scale 1	