

**Flexible insulating sleeving - Part 3: Specification for individual types of sleeving - Sheet 281: Heat-shrinkable, polyolefin sleeving, semiconductive**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60684-3-281:2010 sisaldab Euroopa standardi EN 60684-3-281:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.10.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 10.09.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60684-3-281:2010 consists of the English text of the European standard EN 60684-3-281:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 10.09.2010.

The standard is available from Estonian standardisation organisation.

ICS 29.035.20

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**Flexible insulating sleeving -  
Part 3: Specifications for individual types of sleeving -  
Sheet 281: Heat-shrinkable, polyolefin sleeving, semiconductive  
(IEC 60684-3-281:2010)**

Gaines isolantes souples -  
Partie 3: Spécifications pour types  
particuliers de gaines -  
Feuille 281: Gaines thermorétractables  
en polyoléfine, semiconductrices  
(CEI 60684-3-281:2010)

Isolierschläuche -  
Teil 3: Anforderungen für einzelne  
Schlauchtypen -  
Blatt 281: Halbleitende Polyolefin-  
Wärmeschrumpfschläuche  
(IEC 60684-3-281:2010)

This European Standard was approved by CENELEC on 2010-09-01. 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.

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Comité Européen de Normalisation Electrotechnique  
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## Foreword

The text of document 15/563/FDIS, future edition 1 of IEC 60684-3-281, prepared by IEC TC 15, Solid electrical insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60684-3-281 on 2010-09-01.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) | 2011-06-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2013-09-01 |

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60684-3-281:2010 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

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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>
-	-	Test requirements on accessories for use on power cables of rated voltage from 3,6/6(7,2) kV up to 20,8/36(42) kV - Part 1: Cables with extruded insulation	HD 629.1 S2	2006
IEC 60296	2003	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear	EN 60296 + corr. September	2004 2004
IEC 60502	Series	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV)	-	-
IEC 60684-1	2003	Flexible insulating sleeving - Part 1: Definitions and general requirements	EN 60684-1	2003
IEC 60684-2	1997	Flexible insulating sleeving -	EN 60684-2	1997
+ A1	2003	Part 2: Methods of test	+ A1	2003
+ A2	2005		+ A2	2005
IEC 60757	1983	Code for designation of colours	HD 457 S1	1985

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## INTRODUCTION

This International 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 comprises one of the sheets of Part 3 as follows:

Sheet 281: Heat-shrinkable, polyolefin sleeving, semiconductive

## FLEXIBLE INSULATING SLEEVING –

### Part 3: Specifications for individual types of sleeving – Sheet 281: Heat-shrinkable, polyolefin sleeving, semiconductive

#### 1 Scope

This part of IEC 60684 gives the requirements for two types of heat-shrinkable, polyolefin sleeving, semiconductive, with a nominal shrink ratio of 3:1.

This sleeving has been found suitable up to temperatures of 100 °C.

- Type A: Thin wall                      Internal diameter up to 195,0 mm typically
- Type B: Medium wall                  Internal diameter up to 120,0 mm typically

These sleeveings are normally supplied in the colour black.

Since these types of sleeveings cover a significantly large range of sizes and wall thicknesses, Tables A.1 and A.2 in this standard provides guidance to the range of sizes available. The actual size shall be agreed between the user and the supplier.

Materials which conform to this specification meet established levels of performance. However, the selection of a material by a user for a specific application should be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

This sleeving is designed to be used in MV cable accessories and as such electrical performance must be proven as part of the assembly. Examples of this are described in HD 629 and IEC 60502 series.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60296:2003, *Fluids for electrotechnical applications – Unused mineral insulating oils for transformers and switchgear*

IEC 60502 (all parts), *Power cables with extruded insulation and their accessories for rated voltages from 1 kV ( $U_m = 1,2$  kV) up to 30 kV ( $U_m = 36$  kV)*

IEC 60684-1:2003, *Flexible insulating sleeving – Part 1: Definitions and general requirements*

IEC 60684-2:1997, *Flexible insulating sleeving – Part 2: Methods of test*  
Amendment 1 (2003)  
Amendment 2 (2005)

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