



NSAI
Standards

Irish Standard
I.S. EN 60684-3-247:2011&A1:2017

Flexible insulating sleeving - Part 3:
Specifications for individual types of sleeving
- Sheet 247: Heat-shrinkable polyolefin
sleeving, dual wall, not flame retarded, thick
and medium wall

I.S. EN 60684-3-247:2011&A1:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 60684-3-247:2011&A1:2017 is the adopted Irish version of the European Document EN 60684-3-247:2011, Flexible insulating sleeving - Part 3: Specifications for individual types of sleeving - Sheet 247: Heat-shrinkable polyolefin sleeving, dual wall, not flame retarded, thick and medium wall

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EUROPEAN STANDARD
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EN 60684-3-247:2011/A1

March 2017

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English Version

Flexible insulating sleeving - Part 3: Specifications for individual types of sleeving - Sheet 247: Heat-shrinkable polyolefin sleeving, dual wall, not flame retarded, thick and medium wall (IEC 60684-3-247:2011/A1:2016)

Gaines isolantes souples - Partie 3: Spécifications pour types particuliers de gaines - Feuille 247: Gaines thermorétractables en polyoléfine, à double paroi (épaisse et moyenne), non retardées à la flamme (IEC 60684-3-247:2011/A1:2016)

Isolierschläuche - Teil 3: Anforderungen für einzelne Schlauchtypen - Blatt 247: Wärmeschrumpfende Polyolefinschläuche mit Innenbeschichtung, nicht flammhemmend, dickwandig und mittlere Wanddicke (IEC 60684-3-247:2011/A1:2016)

This amendment A1 modifies the European Standard EN 60684-3-247:2011; it was approved by CENELEC on 2017-01-18. 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.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 60684-3-247:2011/A1:2017

European foreword

The text of document 15/754/CDV, future IEC 60684-3-247:2011/A1, prepared by IEC/TC 15 "Solid electrical insulating materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60684-3-247:2011/A1:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at (dop) 2017-10-18
national level by publication of an identical national
standard or by endorsement
- latest date by which the national standards conflicting with (dow) 2020-01-18
the document have to be withdrawn

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60684-3-247

September 2011

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English version

**Flexible insulating sleeving -
Part 3: Specifications for individual types of sleeving -
Sheet 247: Heat-shrinkable polyolefin sleeving, dual wall, not flame
retarded, thick and medium wall
(IEC 60684-3-247:2011)**

Gaines isolantes souples -
Partie 3: Spécifications pour types
particuliers de gaines -
Feuille 247: Gaines thermorétractables en
polyoléfine, à double paroi (épaisse et
moyenne), non retardées à la flamme
(CEI 60684-3-247:2011)

Isolierschläuche -
Teil 3: Anforderungen für einzelne
Schlauchtypen -
Blatt 247: Wärmeschrumpfende
Polyolefinschläuche mit
Innenbeschichtung, nicht flammwidrig,
dickwandig und mittlere Wanddicke
(IEC 60684-3-247:2011)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 15/625/FDIS, future edition 1 of IEC 60684-3-247, prepared by IEC TC 15, Solid electrical insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60684-3-247 on 2011-07-28.

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at national level by publication of an identical
national standard or by endorsement (dop) 2012-04-28
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2014-07-28

Annex ZA has been added by CENELEC.

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The text of the International Standard IEC 60684-3-247:2011 was approved by CENELEC as a European Standard without any modification.

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> |
|---------------------|--------------|--|-------------------------------|--------------|
| IEC 60296 | 2003 | Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear | EN 60296 + corr. September | 2004 2004 |
| IEC 60502-1 | 2004 | 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) - Part 1: Cables for rated voltages of 1 kV ($U_m = 1,2$ kV) and 3 kV ($U_m = 3,6$ kV) | - | - |
| IEC 60684-1 | 2003 | Flexible insulating sleeving - Part 1: Definitions and general requirements | EN 60684-1 | 2003 |
| IEC 60684-2 + A2 | 1997 2005 | Flexible insulating sleeving - Part 2: Methods of test | EN 60684-2 + A2 | 1997 2005 |
| IEC 60757 | 1983 | Code for designation of colours | HD 457 S1 | 1985 |
| ISO 846 | 1997 | Plastics - Evaluation of the action of microorganisms | EN ISO 846 | 1997 |
| ISO 868 | 2003 | Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness) | EN ISO 868 | 2003 |
| ISO 11357-3 | 1999 | Plastics - Differential scanning calorimetry (DSC) - Part 3: Determination of temperature and enthalpy of melting and crystallization | - | - |
| ISO 11358 | 1997 | Plastics - Thermogravimetry (TG) of polymers - General principles | EN ISO 11358 | 1997 |

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Edition 1.0 2011-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Flexible insulating sleeving –
Part 3: Specifications for individual types of sleeving – Sheet 247: Heat-
shrinkable, polyolefin sleeving, dual wall, not flame retarded, thick and medium
wall**

**Gaines isolantes souples –
Partie 3: Spécifications pour types particuliers de gaines – Feuille 247: Gaines
thermorétractables en polyoléfine, à double paroi (épaisse et moyenne), non
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IEC 60684-3-247

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Flexible insulating sleeving –

Part 3: Specifications for individual types of sleeving – Sheet 247: Heat-shrinkable, polyolefin sleeving, dual wall, not flame retarded, thick and medium wall

Gaines isolantes souples –

Partie 3: Spécifications pour types particuliers de gaines – Feuille 247: Gaines thermorétractables en polyoléfine, à double paroi (épaisse et moyenne), non retardées à la flamme

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FLEXIBLE INSULATING SLEEVING –

Part 3: Specifications for individual types of sleeving – Sheet 247: Heat-shrinkable, polyolefin sleeving, dual wall, not flame retarded, thick and medium wall

FOREWORD

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International Standard IEC 60684-3-247 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

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

| FDIS | Report on voting |
|-------------|------------------|
| 15/625/FDIS | 15/637/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 60684 series, under the general title *Flexible insulating sleeving*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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 gives one of the sheets comprising part 3 as follows:

Sheet 247: Heat-shrinkable, polyolefin sleeving, dual wall, not flame retarded, thick and medium wall

FLEXIBLE INSULATING SLEEVING –

Part 3: Specifications for individual types of sleeving – Sheet 247: Heat-shrinkable, polyolefin sleeving, dual wall, not flame retarded, thick and medium wall

1 Scope

This part of IEC 60684 gives the requirements for two types of heat-shrinkable, polyolefin sleeving, dual wall, not flame retarded with a nominal shrink ratio of 3:1.

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

Type A : Medium wall, internal diameter up to 200,0 mm typically

Type B : Thick wall, internal diameter up to 200,0 mm typically

These sleeveings are normally supplied in colour black.

Since these types of sleeveings cover a significantly large range of sizes and wall thicknesses, Tables A.1 and A.2 provide a guide to the range of sizes available. The actual size shall be agreed between the user and 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.

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 60502-1:2004, *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) – Part 1: Cables for rated voltages of 1 kV ($U_m = 1,2$ kV) and 3 kV ($U_m = 3,6$ 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 2 (2005)

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

ISO 846:1997, *Plastics – Evaluation of the action of micro-organisms*

ISO 868: 2003, *Plastics and ebonite – Determination of indentation hardness by means of a durometer (Shore hardness)*

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