



**NSAI**  
Standards

Irish Standard  
I.S. EN 60684-3-214:2014

Flexible insulating sleeving -- Part 3:  
Specifications for individual types of sleeving  
- Sheet 214: Heat-shrinkable, polyolefin  
sleeving, not flame retarded, thick and  
medium wall

**I.S. EN 60684-3-214:2014**

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*This document is based on:*

EN 60684-3-214:2014

*Published:*

2014-02-21

*This document was published under the authority of the NSAI and comes into effect on:*

2014-03-04

ICS number:

29.035.20

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60684-3-214**

February 2014

ICS 29.035.20

Supersedes EN 60684-3-214:2005

English version

**Flexible insulating sleeving -  
Part 3: Specifications for individual types of sleeving -  
Sheet 214: Heat-shrinkable, polyolefin sleeving, not flame retarded, thick  
and medium wall  
(IEC 60684-3-214:2013)**

Gaines isolantes souples -  
Partie 3: Spécifications pour types  
particuliers de gaines -  
Feuille 214: Gaines thermorétractables en  
polyoléfine, non ignifugées, à paroi  
épaisse et moyenne  
(CEI 60684-3-214:2013)

Isolierschläuche -  
Teil 3: Anforderungen für einzelne  
Schlauchtypen -  
Blatt 214: Polyolefin-  
Wärmeschrumpfschläuche, nicht-  
flammwidrig, dickwandig und mittlere  
Wanddicke  
(IEC 60684-3-214:2013)

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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**

## Foreword

The text of document 15/718/FDIS, future edition 3 of IEC 60684-3-214, prepared by IEC/TC 15 "Solid electrical insulating materials", was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60684-3-214:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-09-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-12-24

This document supersedes EN 60684-3-214:2005.

EN 60684-3-214:2014 includes the following significant technical changes with respect to EN 60684-3-214:2006:

Alignment with EN 60684-3-247 (dual wall) since this Part 3 specification represents a single wall option using identical material.

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

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The text of the International Standard IEC 60684-3-214:2013 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60684-3 Series NOTE Harmonised in EN 60684-3 series (not modified).

**Annex ZA**  
(normative)  
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**with their corresponding European publications**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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	2012	Fluids for electrotechnical applications - Unused mineral insulating oils for transformers and switchgear	EN 60296	2012
IEC 60684-1	2003	Flexible insulating sleeving - Part 1: Definitions and general requirements	EN 60684-1	2003
IEC 60684-2	2011	Flexible insulating sleeving - Part 2: Methods of test	EN 60684-2	2011
IEC 60757	1983	Code for designation of colours	HD 457 S1	1985
ISO 868	2003	Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness)	EN ISO 868	2003
ISO 11358	1997	Plastics - Thermogravimetry (TG) of polymers - General principles	EN ISO 11358	1997

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**IEC 60684-3-214**

Edition 3.0 2013-11

# **INTERNATIONAL STANDARD**

## **NORME INTERNATIONALE**

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**Flexible insulating sleeving –  
Part 3: Specifications for individual types of sleeving –  
Sheet 214: Heat-shrinkable, polyolefin sleeving, not flame retarded,  
thick and medium wall**

**Gaines isolantes souples –  
Partie 3: Spécifications pour types particuliers de gaines –  
Feuille 214: Gaines thermorétractables en polyoléfine, non ignifugées,  
à paroi épaisse et moyenne**





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**IEC 60684-3-214**

Edition 3.0 2013-11

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**

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à paroi épaisse et moyenne**

INTERNATIONAL  
ELECTROTECHNICAL  
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COMMISSION  
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INTERNATIONALE

PRICE CODE  
CODE PRIX

**M**

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ICS 29.035.20

ISBN 978-2-8322-1196-0

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **FLEXIBLE INSULATING SLEEVING –**

### **Part 3: Specifications for individual types of sleeving – Sheet 214: Heat-shrinkable, polyolefin sleeving, not flame retarded, thick and medium wall**

#### FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60684-3-214 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

This third edition cancels and replaces the second edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition:

Alignment with IEC 60684-3-247 (dual wall) since this Part 3 specification represents a single wall option using identical material.

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

FDIS	Report on voting
15/718/FDIS	15/721/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 parts in the IEC 60684 series, published 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 214: Heat-shrinkable, polyolefin sleeving, not flame retarded, thick and medium wall.

## **FLEXIBLE INSULATING SLEEVING –**

### **Part 3: Specifications for individual types of sleeving – Sheet 214: Heat-shrinkable, polyolefin sleeving, not flame retarded, thick and medium wall**

#### **1 Scope**

This standard gives the requirements for two types of heat-shrinkable, polyolefin sleeving, not flame retarded, thick and medium wall 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 mm typically.

Type B: Thick wall – internal diameter up to 200 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 of this document provides a guide to the range of sizes available. The actual size will 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 documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60296:2012, *Fluids for electrotechnical applications – Unused mineral insulating oils for transformers and switchgear*

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

IEC 60684-2:2011, *Flexible insulating sleeving – Part 2: Methods of test*

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

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

ISO 11358:1997, *Plastics – Thermogravimetry (TG) of polymers– General principles*

#### **3 Designation**

The sleeving shall be identified by the following designation:

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