



**NSAI**  
Standards

Irish Standard  
I.S. EN IEC 60684-3-214:2019

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 IEC 60684-3-214:2019**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN IEC 60684-3-214:2019 is the adopted Irish version of the European Document EN IEC 60684-3-214:2019, Flexible insulating sleeving - Part 3: Specifications for individual types of sleeving - Sheet 214: Heat-shrinkable, polyolefin sleeving, not flame retarded, thick and medium wall

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN IEC 60684-3-214**

October 2019

ICS 29.035.20

Supersedes EN 60684-3-214:2014 and all of its  
amendments and corrigenda (if any)

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 60684-3-214:2019)**

Gaines isolantes souples - Partie 3: Spécifications pour  
types particuliers de gaines - Feuille 214: Gaines  
thermorétractables en polyoléfine, non ignifugées, à paroi  
épaisse et moyenne  
(IEC 60684-3-214:2019)

Isolierschläuche - Teil 3: Anforderungen für einzelne  
Schlauchtypen - Blatt 214: Polyolefin-  
Wärmeschrumpfschläuche, nicht-flammwidrig, dickwandig  
und mittlere Wanddicke  
(IEC 60684-3-214:2019)

This European Standard was approved by CENELEC on 2019-09-12. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## **EN IEC 60684-3-214:2019 (E)**

### **European foreword**

The text of document 15/889/FDIS, future edition 4 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 IEC 60684-3-214:2019.

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) 2020-06-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-09-12

This document supersedes EN 60684-3-214:2014 and all of its amendments and corrigenda (if any).

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### **Endorsement notice**

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60684-3 (series)	NOTE	Harmonized as EN 60684-3-420 to 422 (series)
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## Annex ZA

(normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<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 11358-1	2014	Plastics - Thermogravimetry (TG) of polymers - Part 1: General principles	EN ISO 11358-1	2014

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**IEC 60684-3-214**

Edition 4.0 2019-08

# **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 4.0 2019-08

# **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  
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Feuille 214: Gaines thermorétractables en polyoléfine, non ignifugées, à paroi  
épaisse et moyenne**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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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 fourth edition cancels and replaces the third edition published in 2013. This edition constitutes a technical revision.

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

- a) removal of colour fastness to light test, as this is covered by the test for carbon black content.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
15/889/FDIS	15/899/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document 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 document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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

## INTRODUCTION

This document is one of a series of standards 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 document comprises one of the sheets of 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 part of IEC 60684 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 sleeving cover a significantly large range of sizes and wall thicknesses, Annex A (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 will 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 are referred to in the text in such a way that some or all of their content constitutes requirements 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 60296:2012, *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 11358-1:2014, *Plastics – Thermogravimetry (TG) of polymers – Part 1: General principles*



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