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INTERNATIONAL STANDARD



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

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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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.

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- amended.

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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 ~~should~~ 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*

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ISO 11358-1:~~1997~~2014, *Plastics – Thermogravimetry (TG) of polymers – Part 1: General principles*

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**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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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

GAINES ISOLANTES SOUPLES –

**Partie 3: Spécifications pour types particuliers de gaines –
Feuille 214: Gainés thermorétractables en polyoléfine,
non ignifugés, à paroi épaisse et moyenne**

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La Norme internationale IEC 60684-3-214 a été établie par le comité d'études 15 de l'IEC: Matériaux isolants électriques solides.

Cette quatrième édition annule et remplace la troisième édition parue en 2013. Cette édition constitue une révision technique.

Cette édition inclut la modification technique majeure suivante par rapport à l'édition précédente:

- a) suppression de l'essai de solidité de la couleur à la lumière, cet essai étant couvert par l'essai de détermination de la teneur en noir de carbone.

Le texte de cette Norme internationale est issu des documents suivants:

FDIS	Rapport de vote
15/889/FDIS	15/899/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 60684, publiées sous le titre général *Gaines isolantes souples*, peut être consultée sur le site web de l'IEC.

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INTRODUCTION

Le présent document fait partie d'une série de normes traitant des gaines isolantes souples à usages électriques.

Cette série est constituée de trois parties:

Partie 1: Définitions et exigences générales (IEC 60684-1)

Partie 2: Méthodes d'essai (IEC 60684-2)

Partie 3: Spécifications pour types particuliers de gaines (IEC 60684-3)

Le présent document contient l'une des feuilles qui composent la Partie 3, comme suit:

Feuille 214: Gains thermorétractables en polyoléfine, non ignifugées, à paroi épaisse et moyenne.

GAINES ISOLANTES SOUPLES –

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

1 Domaine d'application

La présente partie de l'IEC 60684 donne les exigences relatives à deux types de gaines thermorétractables, en polyoléfine, non ignifugées, à paroi épaisse et moyenne, dont le rapport de rétreint nominal est 3:1.

Ces gaines se sont avérées appropriées pour une utilisation à des températures allant jusqu'à 100 °C.

- Type A: Paroi moyenne – diamètre intérieur généralement jusqu'à 200 mm.
- Type B: Paroi épaisse – diamètre intérieur généralement jusqu'à 200 mm.

La couleur de ces gaines est normalement le noir.

Comme ces types de gaines couvrent une plage très étendue de tailles et d'épaisseurs de paroi, l'Annexe A (Tableaux A.1 et A.2) du présent document fournit un guide des tailles disponibles dans cette plage. La taille réelle fait l'objet d'un accord entre l'utilisateur et le fournisseur.

Les matériaux conformes à la présente spécification satisfont à des niveaux de performances établis. Cependant, le choix d'un matériau par un utilisateur, pour une application spécifique, est fondé sur les exigences réelles nécessaires pour obtenir une performance adéquate pour l'application concernée, et n'est pas fondé sur cette seule spécification.

2 Références normatives

Les documents suivants cités dans le texte constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60296:2012, *Fluides pour applications électrotechniques – Huiles minérales isolantes neuves pour transformateurs et appareillages de connexion*

IEC 60684-1:2003, *Gainés isolantes souples – Partie 1: Définitions et exigences générales*

IEC 60684-2:2011, *Gainés isolantes souples – Partie 2: Méthodes d'essai*

IEC 60757:1983, *Code de désignation de couleurs*

ISO 868:2003, *Plastiques et ébonite – Détermination de la dureté par pénétration au moyen d'un duromètre (dureté Shore)*

ISO 11358-1:2014, *Plastiques – Thermogravimétrie (TG) des polymères – Partie 1: Principes généraux*