



BSI Standards Publication

Flexible insulating sleeving

Part 3: Specifications for individual types of sleeving – Sheet 216:
Heat-shrinkable, flame-retarded, limited-fire-hazard sleeving

National foreword

This British Standard is the UK implementation of EN IEC 60684-3-216:2019. It is identical to IEC 60684-3-216:2019. It supersedes BS EN 60684-3-216:2005+A2:2014, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/15, Solid electrical insulating materials.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**Flexible insulating sleeving - Part 3: Specifications for individual
types of sleeving - Sheet 216: Heat-shrinkable, flame- retarded,
limited-fire-hazard sleeving
(IEC 60684-3-216:2019)**

Gaines isolantes souples - Partie 3: Spécifications pour
types particuliers de gaines - Feuille 216: Gaines
thermorétractables, ignifugées, au risque de feu limité
(IEC 60684-3-216:2019)

Isolierschläuche - Teil 3: Anforderungen für einzelne
Schlauchtypen - Blatt 216: Wärmeschrumpfende,
flamwidrige Schläuche mit begrenztem Brandrisiko
(IEC 60684-3-216:2019)

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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

European foreword

The text of document 15/888/FDIS, future edition 2 of IEC 60684-3-216, prepared by IEC/TC 15 "Solid electrical insulating materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60684-3-216:2019.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-09-12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 60684-3-216:2005 and all of its amendments and corrigenda (if any).

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

Endorsement notice

The text of the International Standard IEC 60684-3-216:2019 was approved by CENELEC as a European Standard without any modification.

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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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FLEXIBLE INSULATING SLEEVING –**Part 3: Specifications for individual types of sleeving –
Sheet 216: Heat-shrinkable, flame-retarded,
limited-fire-hazard sleeving**

FOREWORD

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International Standard IEC 60684-3-216 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

This second edition cancels and replaces the first edition published in 2001, Amendment 1:2005 and Amendment 2:2013. This edition constitutes a technical revision.

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

- a) the temperature at which the sleeving is shrunk in a forced-air circulation oven for (5 ± 1) min has been increased from $(150 \pm 5) ^\circ\text{C}$ to $(200 \pm 5) ^\circ\text{C}$.

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

FDIS	Report on voting
15/888/FDIS	15/902/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 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 document comprises one of the sheets of Part 3 as follows:

Sheet 216: Heat-shrinkable, flame-retarded, limited-fire-hazard sleeving

FLEXIBLE INSULATING SLEEVING –

Part 3: Specifications for individual types of sleeving – Sheet 216: Heat-shrinkable, flame-retarded, limited-fire-hazard sleeving

1 Scope

This part of IEC 60684-3 gives the requirements for four types of heat-shrinkable, flame-retarded, limited-fire-hazard sleeving with a thermal endurance rating of 105 °C as shown below.

Class A:	thin wall	shrink ratio 2:1	internal diameter up to 102,0 mm
Class B:	medium wall	shrink ratio 2:1	internal diameter up to 60,0 mm
Class C:	thick wall	shrink ratio 2:1	internal diameter up to 51,0 mm
Class D:	medium wall	shrink ratio 3:1	internal diameter up to 40,0 mm

These sleeveings are normally supplied in the following colours: black, red, green, blue, white, yellow and green/yellow.

Sizes or colours other than those listed in this document are available as custom items. These items are considered to comply with this document if they comply with the property requirements listed in Tables 5, 6, 7 and 8, excluding dimensions and mass.

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 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 846:2019, *Plastics – Evaluation of the action of microorganisms*

ISO 1817:2015, *Rubber, vulcanized or thermoplastic – Determination of the effect of liquids*