



BSI Standards Publication

## **Aerospace electrical requirements — Sleeves and moulded shapes — Specifications for aircraft use**

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## National foreword

This Published Document is the UK implementation of ISO/TR 21891:2017.

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

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## **Aerospace electrical requirements — Sleeves and moulded shapes — Specifications for aircraft use**

*Exigences électriques pour équipements aérospatiaux — Gaines et  
pièces moulées d'isolation — Spécification pour utilisation sur aéronef*





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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 1, *Aerospace electrical requirements*.

## **Introduction**

This document has been drawn up by ISO/TC 20/SC 1 and IEC/SC 15C in order to create a list of IEC and other standards for insulation and/or mechanical/environmental protection sleeves and heat shrink moulded shapes suitable for use on aircraft. The range of sleeves includes heat shrink, extruded (non-heat shrink) and textile. The list draws primarily upon IEC 60684 series for flexible insulating sleeving. IEC 60684 series is an ongoing programme and new standards are being added periodically.





# Aerospace electrical requirements — Sleeves and moulded shapes — Specifications for aircraft use

## 1 Scope

This document brings together, in a single list, those standards for insulation and/or mechanical/environmental protection sleeves and heat shrink moulded shapes that have been determined as being suitable for use on aircraft. The range of sleeves includes heat shrink, extruded (non-heat shrink) and textile.

## 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, *Flexible insulating sleeving — Part 1: Definitions and general requirements*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60684-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

## 4 List of standards

[Table 1](#) gives the list of standards together with information on usage or any limitations for aircraft applications.

**Table 1 — List of applicable standards**

Standard	Description	Usage, notes and related national specifications (informative)
IEC 60684-1	Flexible insulating sleeving — Definitions and general requirements	Top level technical specification
IEC 60684-2	Flexible insulating sleeving — Methods of test	Test methods
IEC 60684-3-116/118	Flexible insulating sleeving — Extruded polychloroprene	Used for areas of occasional contamination by mineral oils, petroleum fuels, and mineral or castor oil based hydraulic fluids. See also BS 4G 198-1 Type 1
IEC 60684-3-121/124	Flexible insulating sleeving — Extruded silicone	Oil and hydraulic fluid resistant. Not for contact with fuels. See also BS 4G 198-1 Type 4
IEC 60684-3-136	Flexible insulating sleeving — Extruded fluorosilicone	Oil, hydraulic fluid and fuel resistant. See also BS 4G 198-1 Type 3