

BS EN 6059-100:2015



BSI Standards Publication

# Aerospace series — Electrical cables, installation — Protection sleeves — Test methods

Part 100: General

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**National foreword**

This British Standard is the UK implementation of EN 6059-100:2015. It supersedes BS EN 6059-100:2011 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

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

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English Version

## Aerospace series - Electrical cables, installation - Protection sleeves - Test methods - Part 100: General

Série aérospatiale - Câbles électriques, installation - Gaines de protection - Méthodes d'essais - Partie 100: Généralités

Luft- und Raumfahrt - Elektrische Leitungen, Installation - Schutzschläuche - Prüfverfahren - Teil 100: Allgemeines

This European Standard was approved by CEN on 29 November 2014.

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## European foreword

This document (EN 6059-100:2015) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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

This document supersedes EN 6059-100:2011.

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## 1 Scope

This European Standard specifies the general test methods and qualification for protection sleeves for cables and cable bundles for aerospace applications.

## 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.

EN 3844-1, *Aerospace series — Flammability of non metallic materials — Part 1: Small burner test, vertical — Determination of the vertical flame propagation*

EN 6049-001, *Aerospace series — Electrical cables, installation — Protection sleeve in meta-aramid fibres — Part 001: Technical specification* <sup>1)</sup>

EN 6059 (all parts), *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods* <sup>1)</sup>

## 3 Terms and definitions

For the purpose of this standard, the terms and definitions given in EN 6049-001 apply.

## 4 Test conditions

The tests shall be carried out under the following atmospheric conditions:

- Ambient temperature shall be  $(20 \pm 5)$  °C.
- Relative humidity shall be between 45 % and 75 %.

## 5 Reporting results

The following details shall be reported:

- Approved drawings.
- Type and size code.
- Length of specimen if this not specified in the test method or if there is a deviation with respect to the test method.

1) Published as ASD-STAN Prestandard at the date of publication of this standard. <http://www.asd-stan.org/>

## 6 List of test methods

See Table 1 to Table 5 hereafter.

**Table 1 — General tests**

<b>EN 6059-</b>	<b>Title</b>
201	Visual examination
202	Dimensions and mass
203	Coverage

**Table 2 — Environmental tests**

<b>EN 6059-</b>	<b>Title</b>
301	Sun light exposure
302	High temperature exposure
303	Resistance to fluids
304 or EN 3844-1	Flammability
305	Fluid absorption
306	Mould growth
307	Ageing
308	Rapid change of temperature
309	Fire resistance when fitted on a cable bundle

**Table 3 — Mechanical tests**

<b>EN 6059-</b>	<b>Title</b>
401	Expansion range
402	Bending properties
403	Scrape abrasion
404	Tensile strength
405	Dynamic cut-through
406	Vibration

**Table 4 — Electrical tests**

<b>EN 6059-</b>	<b>Title</b>
501	Voltage proof test
502	Resistance to electrical arcs
503	Temperature rise due to rated current injected on the sleeve
504	Temperature rise within a loom due to self-heating when within a protective sleeve

**Table 5 — Fitting tests**

<b>EN 6059-</b>	<b>Title</b>
601	Open and close
602	Marking durability





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