



**NSAI**  
Standards

Irish Standard  
I.S. EN 6059-304:2017

Aerospace series - Electrical cables,  
installation - Protection sleeves - Test  
methods - Part 304: Flammability

**I.S. EN 6059-304:2017**

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

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## National Foreword

I.S. EN 6059-304:2017 is the adopted Irish version of the European Document EN 6059-304:2017, Aerospace series - Electrical cables, installation - Protection sleeves - Test methods - Part 304: Flammability

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EUROPEAN STANDARD

**EN 6059-304**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Aerospace series - Electrical cables, installation - Protection sleeves - Test methods - Part 304: Flammability

Série aérospatiale - Câbles électriques, installation -  
Gaines de protection - Méthodes d'essais - Partie 304:  
Résistance au feu

Luft- und Raumfahrt - Elektrische Leitungen,  
Installation - Schutzschläuche - Prüfverfahren - Teil  
304: Flammwidrigkeit

This European Standard was approved by CEN on 6 February 2017.

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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 CEN 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 foreword**

This document (EN 6059-304:2017) 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of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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.

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## EN 6059-304:2017 (E)

### 1 Scope

This European Standard specifies methods for determining the flammability characteristics of protective sleeves, including heat shrink dual wall sleeves, for electric cable and cable bundles. It shall be used together with EN 6059-100.

These tests are designed to satisfy the requirements in JAR-25 Section 1, Part 1, Appendix F.

There are two methods included in this standard:

Method 1 – Applicable for textile fabric sleeves.

Method 2 – Applicable non-textile sleeves for use on electrical/ optical cables and harness components.

### 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 1057, *Copper and copper alloys — Seamless, round copper tubes for water and gas in sanitary and heating applications*

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

EN 6059-100, *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods — Part 100: General*

JAR-25, *Joint Aviation Requirements for Large Aircraft*

### 3 Preparation of specimens

#### 3.1 Method 1

The specimen for fabric sleeves shall be a rectangular shape of at least 75 mm by 305 mm.

#### 3.2 Method 2

A length of sleeving of at least 250 mm is to be mounted on a bundle of 7 AD 8 cables which has been covered in a copper braid <sup>1)</sup>. If necessary to ensure that the sleeve is correctly fitted it may be secured at either end by ptfe/glass ties. Figure 1.

Heat shrinkable sleeves shall be recovered onto a copper tube, Table 1, of diameter approximately one size larger than the specified maximum recovered internal diameter. The copper tube shall have a maximum wall of not greater than 1,05 mm.

The specimen shall be marked 100-105 mm from the lower end to indicate the central point for flame application.

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1) Alternatively a length of thin wall copper tube pipe could be substituted for the cable bundle.



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