



NSAI
Standards

Irish Standard
I.S. EN 6049-009:2016

Aerospace series - Electrical cables,
installation - Protection sleeve in meta-
aramid fibres - Part 009: Self-wrapping fire
protection sleeve, flexible, post installation,
operating temperature from -55 °C to 260 °C
- Product standard

I.S. EN 6049-009:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

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This document is based on:

EN 6049-009:2016

Published:

2016-04-20

This document was published under the authority of the NSAI and comes into effect on:

2016-05-08

ICS number:

49.060

NOTE: If blank see CEN/CENELEC cover page

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 6049-009:2016 is the adopted Irish version of the European Document EN 6049-009:2016, Aerospace series - Electrical cables, installation - Protection sleeve in meta-aramid fibres - Part 009: Self-wrapping fire protection sleeve, flexible, post installation, operating temperature from -55 °C to 260 °C - Product standard

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EUROPEAN STANDARD

EN 6049-009

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 49.060

English Version

**Aerospace series - Electrical cables, installation -
Protection sleeve in meta-aramid fibres - Part 009: Self-
wrapping fire protection sleeve, flexible, post installation,
operating temperature from -55 °C to 260 °C -
Product standard**

Série aérospatiale - Câbles électriques, installation -
Gaine de protection en fibres méta-aramides - Partie
009 : Gaine de protection auto-fermable, souple,
montage après installation, température d'utilisation
-55 °C à 260 °C - Norme de produit

Luft- und Raumfahrt - Elektrische Leitungen,
Installation - Schutzschläuche aus Meta-Aramidfasern -
Teil 009: Selbstverschließender Feuerschutzschlauch,
flexibel, nachträglich montierbar, Betriebstemperatur
von -55 °C bis 260 °C - Produktnorm

This European Standard was approved by CEN on 28 June 2014.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 6049-009:2016) 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 European 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 October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 6049-009:2016 (E)**1 Scope**

This European Standard specifies the characteristics of post installation flexible self-wrapping fire protection sleeves for electrical cable and cable bundles, providing 360° fire protection to electrical harnesses. The sleeve assembly gives fire resistance protection to the internal electrical harness against fire for five minutes, and ensures that the electrical characteristics of cables will not be degraded.

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 2825, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of smoke density*

EN 2826, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of gas components in the smoke*

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*

EN 6059 (All parts), *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods*

ISO 2685, *Aircraft — Environmental test procedure for airborne equipment — Resistance to fire in designated fire zones* ¹⁾

AMS-DTL-23053E, *Insulation sleeving, electrical, heat-shrinkable, general specification for* ²⁾

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 6049-001 and the following apply.

3.1 overlap angle

sleeve overlap angle for maximum wire bundle diameter

1) Published by: ISO International Organization for Standardization <http://www.iso.org/>

2) Published by: SAE National (US) Society of Automotive Engineers <http://www.sae.org/>

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