Irish Standard
I.S. EN 6049-003:2009

Aerospace series - Electrical cables, installation - Protection sleeve in meta-aramid fibres - Part 003: Braided, tubular, expandable - Product standard

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English Version

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Série aérospatiale - Câbles électriques, installation - Gaine de protection en fibres méta-aramides - Partie 003: Tresse, tubulaire, expansible - Norme de produit

Luft- und Raumfahrt - Elektrische Leitungen, Installation - Schutzschlauche aus Meta-Aramidfasern - Teil 003: Geflecht, rohrenformig, dehnbar - Produkt Norm

This European Standard was approved by CEN on 20 June 2009.

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Contents

Page

Foreword

This document (EN 6049-003:2009) 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of an identical text or by endorsement, at the latest by February 2010, and conflicting national standards shall be withdrawn at the latest by February 2010.

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1 Scope

This standard defines the characteristics of tubular braided expandable mechanical protection sleeves for electrical cable and cable bundles made from Meta-aramid fibres and provided with a water repelled protection.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 3475-601, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 601: Smoke density.*

EN 3475-602, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 602: Toxicity.*

EN 6049-001, *Aerospace series — Electrical cables, installation — Protection sleeve in meta-aramid fibres — Part 001: Technical specification.* [2)]

EN 6059-100 [1)], *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods — Part 100: General.* [2)]

3 Terms and definitions

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

4 Characteristics

4.1 Composition, dimensions and mass

4.1.1 Composition of the tows

Each tow shall be built-up of several groups of multifilament fibres made from Meta-aramid. The number of groups which forms a tow and the width of the tow depends on the braiding configuration (braiding Figure 1 and braiding angle) of the sleeve, see 4.1.2. The thickness of the tow shall be so that the finished sleeve meet the mechanical and environmental requirements. One length of sleeve shall be built-up of one type of tow.

4.1.2 Composition, dimensions and mass of the sleeve

The composition of the sleeve (braiding Figure 1, braiding angle and tow width) shall be so that the sleeve meet the requirements for dimensions, coverage, expansion range and mass. The coverage shall be 80 % minimum. The braiding Figure 1 shall consist of two groups of tows in two directions. The braiding angle between the two groups shall be equal over the length of the sleeve. The maximum difference measured on a mandrel with the delivered diameter in accordance with EN 6059-202 is ± 3 %. Figure 2 and Table 2 give the composition and the dimensions of the sleeve.

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1) All parts quoted in this document.

2) Published as ASD Prestandard at the date of publication of this standard.