SLOVENSKI STANDARD
SIST EN 4674-004:2015

01-april-2015

Aeronavtika - Električni kabli, namestitev - Samoovojna zaslonska (EMI) zaščitna obojka - 004. del: Odprta obojka - Zunaj območja pod tlakom - EMI-zaščita 5 kA - Temperaturno območje –65 °C do 200 °C - Standard za proizvod

Aerospace series - Electrical cables, installation - Self-wrapping shielding (EMI) protective sleeve - Part 004: Open sleeve - Outside pressurized area - EMI protection 10 kA - Temperature range – 65 °C to 200 °C - Product standard

Luft- und Raumfahrt - Elektrische Leitungen, Installation - Selbstschließender abschirmender (EMI) Schutzschlauch - Teil 004: Offener Schutzschlauch - Ausserhalb Druckkabine - EMI Schutz 10 kA - Temperaturbereich – 65 °C bis 200 °C - Produktnorm

Série aérospatiale - Câbles électriques, installation - Gaine de protection blindée (EMI) auto-fermable - Partie 004: Gaine ouverte - Usage externe – Protection EMI 10 kA - Température d'utilisation – 65 °C à 200 °C - Norme de produit

Ta slovenski standard je istoveten z: **EN 4674-004:2015**

ICS:

49.060	Letalska in vesoljska električna oprema in sistemi	Aerospace electric equipment and systems

SIST EN 4674-004:2015 **en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 4674-004

February 2015

ICS 49.060

English Version

Aerospace series - Electrical cables, installation - Self-wrapping shielding (EMI) protective sleeve - Part 004: Open sleeve - Outside pressurized area - EMI protection 10 kA - Temperature range - 65 °C to 200 °C - Product standard

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Luft- und Raumfahrt - Elektrische Leitungen, Installation - Selbstschließender abschirmender (EMI) Schutzschlauch - Teil 004: Offener Schutzschlauch - Außerhalb druckbelüfteter Bereiche - EMI-Schutz 10 kA - Temperaturbereich -65 °C bis 200 °C - Produktnorm

This European Standard was approved by CEN on 4 January 2014.

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

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Foreword

This document (EN 4674-004:2015) 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 August 2015, and conflicting national standards shall be withdrawn at the latest by August 2015.

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1 Scope

This European Standard specifies the characteristics of flexible 10 kA self-wrapping shielding (EMI) protection sleeves, to be installed mainly outside pressurized areas on electrical cables or cable bundles, made from nickel plated copper strands and PPS (polyphenylene sulphide) monofilament.

Temperature range: – 65 °C to 200 °C.

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 2591-214, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 214: Lightning strike, current and voltage pulse*

EN 2591-307, *Aerospace series — Elements of electrical and optical connection — Test methods — Part 307: Salt mist*

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 3475, *Aerospace series — Cables, electrical, aircraft use — Test methods* [1)]

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

EN 4674-001, *Aerospace series — Electrical cables, installation — Self-wrapping shielding (EMI) protective sleeve — Part 001: Technical specification*

EN 4674-002, *Aerospace series — Electrical cables, installation — Self-wrapping shielding (EMI) protective sleeve — Part 002: General and list of product standard*

EN 6059, *Aerospace series — Electrical cables, installation — Protection sleeves — Test methods* [1)]

ISO 4892-3, *Plastics — Methods of exposure to laboratory light sources — Part 3: Fluorescent UV lamps*

IEC 62153-4-3, *Metallic communication cable test methods — Part 4-3: Electromagnetic compatibility (EMC) — Surface transfer impedance — Triaxial method* [2)]

ASTM D4894, *Standard Specification for Polytetrafluoroethylene (PTFE) Granular Molding* [3)]

1) All its parts quoted in Table 5.

2) Published by: IEC International Electrotechnical Commission. http://www.iec.ch/

3) Published by: ASTM National (US) American Society for Testing and Materials. http://www.astm.org/

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4674-001 apply.

4 Required characteristics

4.1 Composition

This product is manufactured from PPS (polyphenylene sulphide) monofilaments and nickel-plated copper wire, with or without an internal protective tape.

4.2 Dimensions and mass of the sleeve

See Figures 1 and 2, Tables 1 and 2.

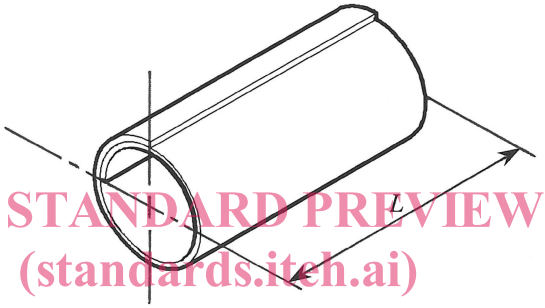
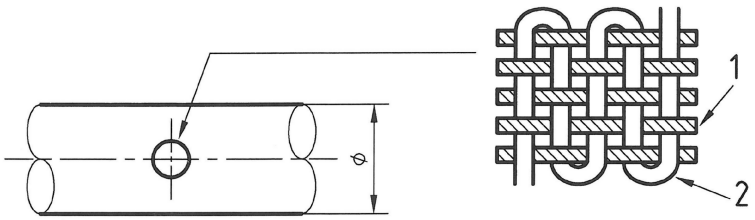


Figure 1



Key

1 Warp
2 Weft

Figure 2

Table 1 — Dimensions and mass without internal protective tape

Size code	Wall thickness mm	Diameters to be protected mm	Mass max. g/m
05	0,9 ± 0,40	0 to 5	57
08		5 to 8	63
13		8 to 13	66
16		13 to 16	75
19		16 to 19	88
25		19 to 25	112
32		25 to 32	148
38		32 to 38	172
45		38 to 45	187

Table 2 — Dimensions and mass with internal protective tape

Size code	Wall thickness mm	Diameters to be protected mm	Mass max. g/m
05	1 ± 0,40	0 to 5	59
08		5 to 8	66
13		8 to 13	77
16		13 to 16	82
19		16 to 19	96
25		19 to 25	122
32		25 to 32	160
38		32 to 38	187
45		38 to 45	205

4.3 Colour, materials and tracer line identification

4.3.1 Colour, tracer line and sleeve identification

See EN 4674-001.

4.3.2 Internal mechanical protection tape

The sleeve can be delivered with an internal mechanical protection tape according to ASTM D4894 Type IV, Grade 2 for electrical insulation between the cables and the metallic flat braid; see Table 3.

Table 3 — Internal mechanical protection tape designation code

Tape code	Supply condition
P	With internal mechanical protection tape
W	Without internal mechanical protection tape

4.3.3 Size identification

To identify each sleeve size, no specific tracer shall be specified. The size can be verified by the installation of the sleeve on a mandrel or bundle and the tracer line.

4.4 Electrical characteristics for EMI protection

4.4.1 Electrical resistance requirement

In accordance with Table 4.

Table 4 — Electrical resistance requirement

Size code	DC Electrical resistance R_o max. mΩ/m
	After endurance cycles
05	6
08	5
13	5
16	5
19	5
25	5
32	5
38	5
45	5
53	5

Resistance measurement shall be done at ambient T and after endurance testing.