

STN	Letectvo a kozmonautika Teplom zmrastiteľné rúrky na viazanie, izoláciu a identifikáciu Časť 106: Rúrky s obmedzeným požiarnym nebezpečenstvom pre prevádzkové teploty od - 30 °C do 105 °C Norma na výrobok	STN EN 4708-106 31 1857
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Aerospace series - Sleeving, heat-shrinkable, for binding, insulation and identification - Part 106: Limited fire hazard sleeving - Operating temperatures - 30 C to 105 C - Product standard

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

**Aerospace series - Sleeving, heat-shrinkable, for binding,
insulation and identification - Part 106: Limited fire hazard
sleeving - Operating temperatures - 30 °C to 105 °C -
Product standard**

Série aérospatiale - Manchons thermorétractables, de
jonction, isolement et identification - Partie 106 :
Risque d'incendie limité - Températures d'utilisation -
30 °C à 105 °C - Norme de produit

Luft- und Raumfahrt - Wärmeschrumpfender Schlauch
zur Befestigung, Isolierung und Identifizierung - Teil
106: Schlauch mit reduziertem Brandverhalten -
Temperaturbereich - 30 °C und 105 °C - Produktnorm

This European Standard was approved by CEN on 27 May 2018.

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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.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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EN 4708-106:2018 (E)

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European foreword

This document (EN 4708-106:2018) 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 April 2019, and conflicting national standards shall be withdrawn at the latest by April 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EN 4708-106:2018 (E)**1 Scope**

This European Standard specifies the required characteristics for four types of heat-shrinkable limited fire hazard sleeveings for use in aircraft electrical systems at operating temperatures between – 30 °C and 105 °C.

This sleeving is flexible, flame retarded and emits minimum smoke, gases and corrosive by-products when exposed to fire. It is available with various wall thicknesses and also in a higher shrink ratio according to the application and degree of mechanical protection required. It is suitable for use (e.g. as cable protection) in areas where smoke, gases or corrosive by-products would constitute a particular hazard.

Type A Thick wall shrink ratio 2:1 and is normally supplied with internal diameters up to 102,0 mm

Type B Medium wall, shrink ratio 2:1 and is normally supplied with internal diameters up to 60,0 mm

Type C Thick wall, shrink ratio 2:1 and is normally supplied with internal diameters up to 51,0 mm

Type D Medium wall, shrink ratio 3:1 and normally supplied with internal diameters up to 40,0 mm

The standard colour is black.

Sizes or colours other than those specifically listed in this standard may be available. These items shall be considered to comply with this standard if they comply with the property requirements listed in Tables 5, 6 and 7 except for dimensions and mass.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3909, *Aerospace series — Test fluids and test methods for electrical and optical components and sub-assemblies*

EN 4708-001, *Aerospace series — Sleeving, heat-shrinkable, for binding, insulation and identification — Part 001: Technical specification*

EN ISO 846, *Plastics — Evaluation of the action of microorganisms* (ISO 846)

ISO 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

EN 60684-1, *Flexible insulating sleeving — Part 1: Definitions and general requirements* (IEC 60684-1)

EN 60684-2, *Flexible insulating sleeving — Part 2: Methods of test* (IEC 60684-2)

IEC 60757, *Code for designation of colours* ¹⁾

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