



SLOVENSKI STANDARD
oSIST prEN 4529-003:2021

01-september-2021

**Aeronavtika - Elementi električnih in optičnih povezav - Tesnilni čepi - 003. del:
Razred T - Standard za proizvod**

Aerospace series - Elements of electrical and optical connection - Sealing plugs - Part
003: Class T - Product standard

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Verschluß-
Stopfen - Teil 003: Klasse T - Produktnorm

Série aérospatiale - Organes de connexion électrique et optique - Obturateur
d'étanchéité - Partie 003 : Classe T - Norme de produit

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Ta slovenski standard je istoveten z: prEN 4529-003

ICS:

49.060

Letalska in vesoljska
električna oprema in sistemi

Aerospace electric
equipment and systems

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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 4529-003

July 2021

ICS 49.060

Will supersede EN 4529-003:2006

English Version

Aerospace series - Elements of electrical and optical connection - Sealing plugs - Part 003: Class T - Product standard

Série aérospatiale - Organes de connexion électrique et optique - Obturateur d'étanchéité - Partie 003 : Classe T - Norme de produit

Luft- und Raumfahrt - Elektrische und optische Verbindungselemente - Verschluss-Stopfen - Teil 003: Klasse T - Produktnorm

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 4529-003:2021) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 4529-003:2006.

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prEN 4529-003:2021 (E)

Introduction

The sealing plug defined by this document is derived from MS27488.

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1 Scope

This document specifies the required characteristics of sealing plugs, class T, for use in elements of electrical and optical connection containing cable (wire) sealing grommets, according to EN 4529-002. It is intended to be used together with EN 4529-001.

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 2591-100,¹ *Aerospace series — Elements of electrical and optical connection — Test methods — Part 100: General*

EN 2997-001, *Aerospace series — Connectors, electrical, circular, coupled by threaded ring, fire-resistant or non fire-resistant, operating temperatures -65 °C to 175 °C continuous, 200 °C continuous, 260 °C peak — Part 001: Technical specification*

EN 3155-001, *Aerospace series — Electrical contacts used in elements of connection — Part 001: Technical specification*

EN 4529-001, *Aerospace series — Elements of electrical and optical connection — Sealing plugs — Part 001: Technical specification*

ISO 13000-2, *Plastics — Polytetrafluoroethylene (PTFE) semi-finished products — Part 2: Preparation of test specimens and determination of properties*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4529-001 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Required characteristics

4.1 Specific characteristics

Class T corresponds to an operating temperature range from -65 °C to 260 °C.

4.2 Dimensions – Mass, colours

See Figure 1 and Table 1.

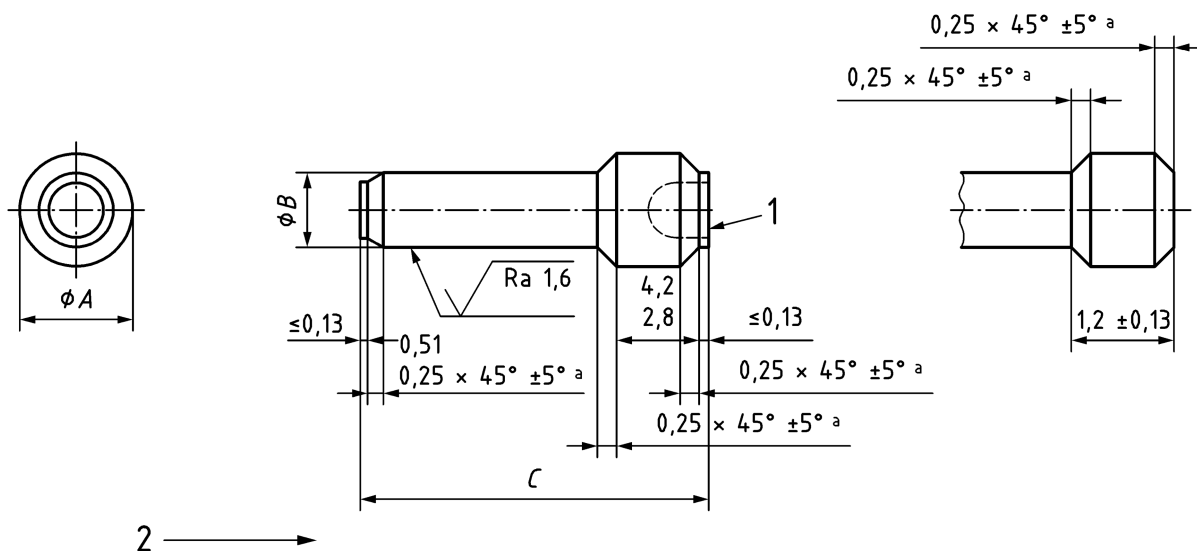
4.3 Material

The material for the plugs shall be polytetrafluoroethylene (PTFE) in accordance with ISO 13000-2 Type E or equivalent.

¹ And all parts quoted in this document.

4.4 Dimensions and mass

No installation tools apply. Sealing plugs are fully inserted in the direction shown in Figure 1 with the thicker end in front, to ensure a proper sealing.



Key

- 1 Recess profile optional
- 2 Direction of installation
- a Rad 0,51 max

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Apply to size 22 only

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Figure 1 — Plug

Table 1 — Dimensions

Size code	Colour	A	B	C		Respective connector contact cavity or module size	Mass g (each) max.	
				Model N ^a	Model L ^b		Model N ^a	Model L ^b
22	Black	1,73 1,47	1,14 0,89	12,70 11,13	21,08 20,07	23-22	0,03	0,05
20	Red	2,54 2,16	1,65 1,14	14,83 13,82	21,08 20,07	20	0,10	0,13
16	Blue	3,51 3,25	2,36 1,85	14,83 13,82	21,08 20,07	16	0,20	0,26
12	Yellow	4,47 4,22	3,33 2,82	14,83 13,82	21,08 20,07	12	0,36	0,49
8	Red	8,13 7,87	4,96 4,45	12,19 11,68	30,20 28,93	8	0,83	1,63
4	Blue	10,67 10,41	8,13 7,62	12,19 11,68	30,20 28,93	4	1,77	3,92
0	Yellow	15,49 15,24	11,43 10,92	25,65 25,15	30,20 28,93	0	6,65	7,86
^a Model N = Normal ^b Model L = Long oSIST prEN 4529-003:2021 https://standards.iteh.ai/catalog/standards/sist/8cbbe210-ea12-4ada-901c-bef1769ccec5/osist-pren-4529-003-2021								

4.5 Tests

See Table 2.

When EN 4529-003 is produced from PTFE in accordance with ISO 13000-2 type E, tests EN 2591-206, EN 2591-301, EN 2591-306, EN 2591-315, EN 2591-317 and EN 2591-515 are not required.

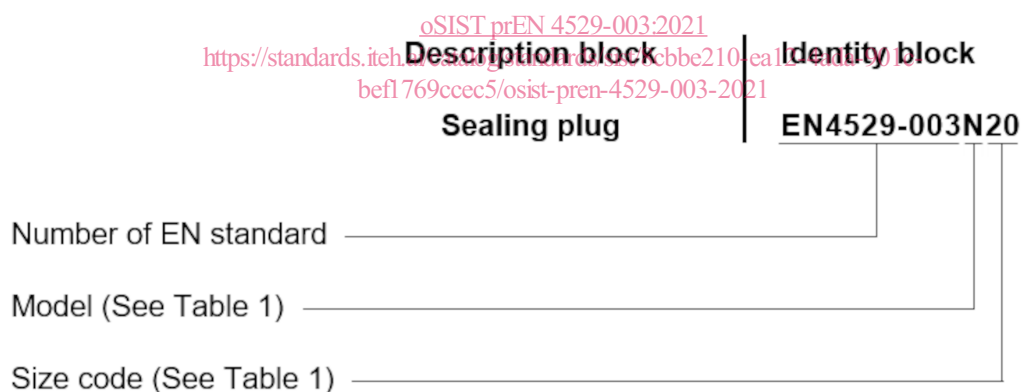
Table 2 — Applicable tests

EN 2591-	Designation of the test	Applicable	
		According to EN 3155-001	Remarks
101	Visual examination	X	
102	Examination of dimensions and mass	X	See 4.4.
206	Measurement of insulation resistance	X	
301	Endurance at temperature	X	$T = (260 \pm 2)^\circ\text{C}$ Duration: 1 000 hours
305	Rapid change of temperature	X	$T_A = (-65 \pm 2)^\circ\text{C}$ $T_B = (260 \pm 2)^\circ\text{C}$
306	Mould growth	X	
315	Fluid resistance	X	See EN 2997-001.
317	Flammability	X	
515	Hydrolytic stability	X	

5 Designation

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EXAMPLE



If necessary, the originator code I9005 shall be placed between the description block and the identity block.

6 Marking

Not applicable.

7 Technical specification

See EN 4529-001.