



SLOVENSKI STANDARD
SIST EN 6141:2020

01-november-2020

Aeronavtika - Vtič, zaščita, nekovinska, za končno vgradnjo po EN 6123

Aerospace series - Plug, protective, non-metallic, for EN 6123 fitting ends

Luft- und Raumfahrt - Stopfen, nicht metallisch, zum Schutz für Endfittings nach EN 6123

Série aérospatiale - Prise, protectrice, non métallique pour raccord <kleiner => 5 000 PSI circuits hydrauliques

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Ta slovenski standard je istoveten z: EN 6141:2020

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ICS:

49.080	Letalski in vesoljski hidravlični sistemi in deli	Aerospace fluid systems and components
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SIST EN 6141:2020

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 6141

September 2020

ICS 49.080

English Version

**Aerospace series - Plug, protective, non-metallic, for EN
6123 fitting ends**

Série aérospatiale - Fiche, de protection, non
métallique, pour raccords EN 6123

Luft- und Raumfahrt - Stopfen, nicht metallisch, zum
Schutz für Endfittinge nach EN 6123

This European Standard was approved by CEN on 22 December 2019.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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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 (EN 6141:2020) 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-STAN, 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 March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

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 organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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EN 6141:2020 (E)**1 Scope**

This document specifies the dimensions, tolerances and required characteristics of protective plugs, non-metallic, for EN 6123 fitting ends to seal fluid ports during transportation and storage in order to prevent

- contamination by moisture, fluids, chemicals and particles,
- spillage inside package or aircraft section,
- port and pipe end damages and
- port and pipe clogging due to plug ingestion.

Because of the cleanliness requirements, parts shall only be used once.

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 2424, *Aerospace series — Marking of aerospace products*

EN 6123, *Aerospace series — Fitting end, 24° internal cone, external thread, flareless type — Extra fine thread pitch — Inch series — Design standard*

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 3161, *Aerospace — UNJ threads — General requirements and limit dimensions*

ISO 9940, *Aerospace series — Fluid, hydraulic, phosphate ester-base, fire resistant — Technical specification*

ISO 11218, *Aerospace — Cleanliness classification for hydraulic fluids*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

4 Requirements

4.1 Configuration, dimensions, tolerances and mass

The configuration, dimensions, tolerances and mass shall be in accordance with Figure 1 and Table 2.

Linear tolerances that are not specified shall be in accordance with ISO 2768-m.

All internal surfaces shall be free of burrs and moulding joints.

4.2 Material, surface treatment and colour

The material and colour shall be in accordance with Table 1.

The plugs shall be resistant to phosphate ester hydraulic fluids according to ISO 9940.

The surface of the parts shall be free of burrs and moulding joints.

Table 1 — Material

Code	Material	Density	Melt Flow Index (MFI)	Colour
—	Polyethylene (HD-PE)	0,940 to 0,970	7,5 to 15,0	Blue (e.g. AMS-STD-595 No. 15090 or No. 15092)

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4.3 Sealing areas

Contact surface mates with the dimensions and tolerances of the fitting part (see Figure 2).

4.4 Proof Pressure

100 kPa (1 bar)

4.5 Temperature range

4.5.1 Storage and transportation temperature

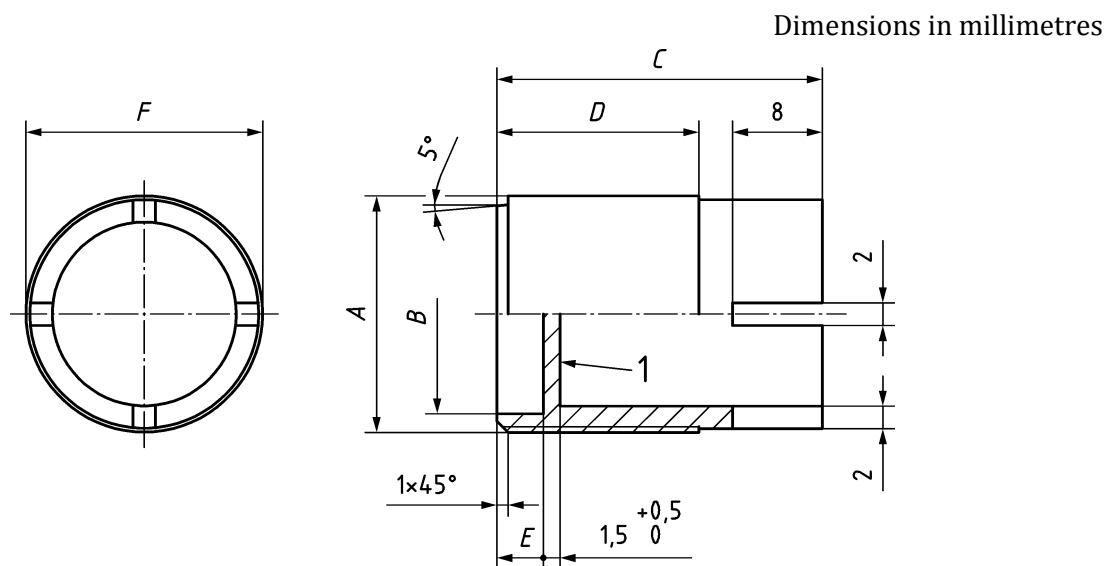
−54 °C to 85 °C

4.5.2 Installation and removal

At room temperature (25 ± 10) °C.

4.5.3 Cleanliness

Parts shall be in accordance with ISO 11218, class 7 or better.

**Key**

1 Marking area

Unless otherwise specified all radius shall be $R = (1,0 \pm 0,2)$ mm.**Figure 1 — Configuration and dimensions****Table 2 — Dimensions and mass.**
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Dimensions in millimetres

Size code ^a	A Thread according to ISO 3161	$\varnothing B$	C	D	E	$\varnothing F$	Mass g
04	.4375-28UNJEF	8,1	23	12	2,20	11,1	1,2
06	.5625-24UNJEF	11,2			2,39	13,9	1,6
08	.7500-20UNJEF	15,3	25	14	3,30	18,3	2,9
10	.8750-20UNJEF	18,5	29	18	4,14	21,1	3,9
12	1.0625-18UNJEF	21,6	30	19	3,45	25,3	6,0
16	1.3125-16UNJ	28,0			3,35	31,5	6,9
20	1.6250-16UNJ	34,4			3,28	39,2	11,0

^a Size code corresponds to the nominal tube diameter in 1/16 inch.

5 Technical requirement

5.1 General

For qualification, 3 specimens per size shall be tested at a temperature of $(25 \pm 10)^\circ\text{C}$. The requirements given in 4.3 shall be fulfilled.

On the sealing area there shall be a consistently good contact between plug and end fitting when hand tightened.

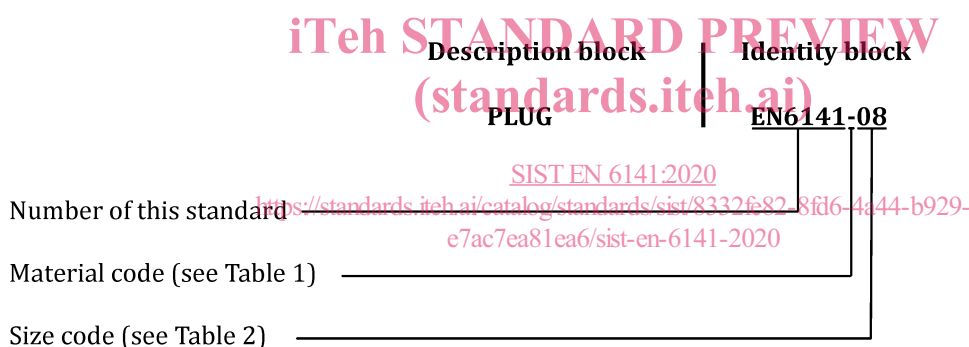
After removing of the plugs, chips inside the equipment/tube/hose are not allowed.

5.2 First article inspection

For first article inspection the test assembly shall withstand a pressure equal to the proof pressure (see 4.4) without leakage, evidence of permanent deformation or other malfunction, for a period of 3 min after pressure stabilisation. Six specimens shall be tested at a temperature of $(25 \pm 10)^\circ\text{C}$.

6 Designation

This type of standard shall be designated according to the philosophy of the following example:



7 Marking

The plugs shall be legibly and permanently marked according to EN 2424, style A and with the following:

- the complete standard part designation; and
- the name of the manufacturer; or
- trademark; or
- cage code.