



SLOVENSKI STANDARD SIST EN 6139:2020

01-november-2020

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

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

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

Série aérospatiale - Chapeau, protecteur, non métallique pour raccord $\leq 5\,000$ PSI
circuits hydrauliques

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Ta slovenski standard je istoveten z: **EN 6139:2020**

[SIST EN 6139:2020](#)

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[bc5233e60517/sist-en-6139-2020](#)

ICS:

49.080	Letalski in vesoljski hidravlični sistemi in deli	Aerospace fluid systems and components
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SIST EN 6139:2020

en,fr,de

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EUROPEAN STANDARD

EN 6139

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2020

ICS 49.080

English Version

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

Série aéronautique - Bouchon, de protection, non métallique, pour raccords EN 6123

Luft- und Raumfahrt - Kappe, nicht metallisch, zum Schutz für Endfittung nach EN 6123

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

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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.

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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 6139:2020) 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 6139:2020 (E)

1 Scope

This document specifies the dimensions, tolerances and required characteristics of protective caps, 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 caps 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

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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

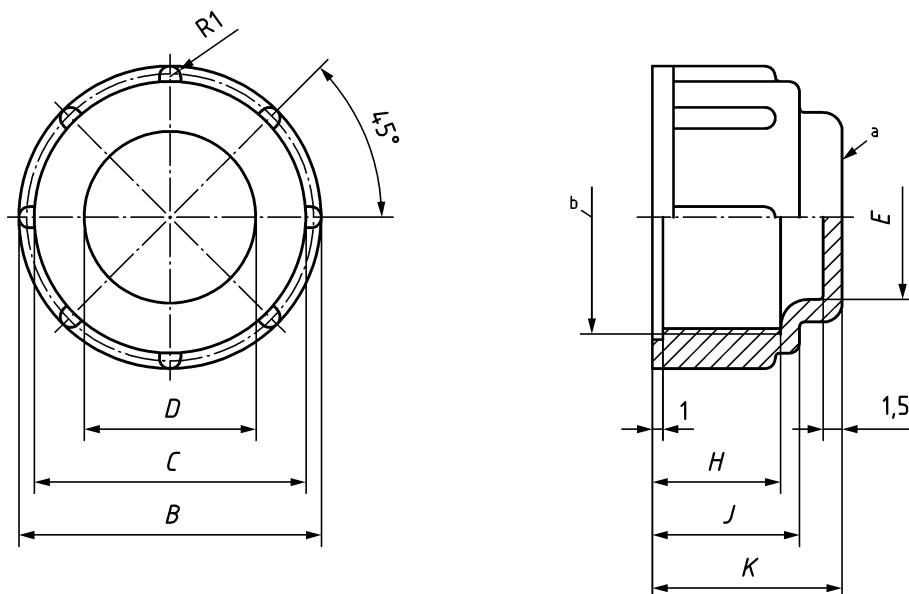
4.5.2 Installation and removal

At room temperature (25 ± 10) °C.

4.5.3 Cleanliness

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

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Key

a Marking area

b Thread "A"

Unless otherwise specified all radius shall be $R = (1,0 \pm 0,2)$ mm.

Figure 1 — Configuration and dimensions
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Table 2 — Dimensions and mass

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Dimensions in millimetres

Size code ^a	A Thread according to ISO 3161	$\varnothing B$	$\varnothing C$	$\varnothing D$	$\varnothing E$	H	J	K	Mass g
04	0.4375"-28UNJEF	17,0	13,9	5	2	8,6	10,1	13,1	1,0
06	0.5625"-24UNJEF	20,5	17,3	8	5	8,8	10,3	13,3	1,5
08	0.7500"-20UNJEF	25,5	22,1	12	9	10,9	13,9	18,4	2,6
10	0.8750"-20UNJEF	28,5	25,6	15	12	12,1	15,1	19,6	3,2
12	1.0625"-18UNJEF	33,5	30,6	18	15				4,2
16	1.3125"-16UNJ	39,5	36,1	24	21	13,3	16,3	20,8	4,9
20	1.6250"-16UNJ	48,5	45,3	31	28				7,6

^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 ± 10) °C. The requirements given in 4.3 and 4.4 shall be fulfilled.

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

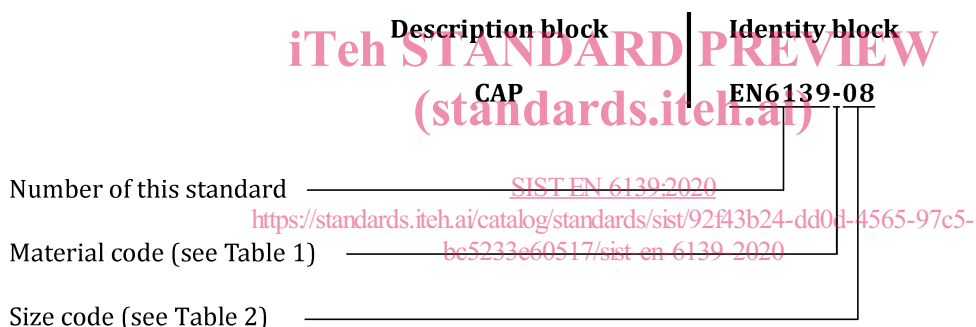
After removing the plugs, chips inside the equipment/tube/hose are not allowed.

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 ± 10) °C.

6 Designation

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



7 Marking

The caps 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.

8 Packaging

All parts shall be delivered individually in suitable bags, which are marked according to EN 2424, style G. The standard parts shall be protected against humidity, embitterment, impact, contamination and other negative influences by suitable approved materials so that no damage or deterioration occurs under normal transport and storage conditions. The packaging materials used shall be in accordance with national health and safety requirements and shall not affect the appearance or quality of the packaged items.