

SLOVENSKI STANDARD

oSIST prEN 4509:2024

01-december-2024

Aeronautika - Vijak, s 100° ugrezno glavo, križno zarezo, z navojem do glave, iz titanove zlitine, anodiziran, z aluminijevim pigmentiranim premazom, metrična serija - Klasifikacija: 1 100 MPa (pri temperaturi okolice)/315 °C

Aerospace series - Screw, 100° countersunk normal head, offset cruciform recess, threaded to head, in titanium alloy, anodized, with aluminium pigmented coating, metric series - Classification: 1 100 MPa (at ambient temperature)/315 °C

Luft- und Raumfahrt - 100° Senkschraube, mit Flügelkreuzschlitz, Gewinde annähernd bis Kopf, aus Titanlegierung, anodisiert, mit Aluminium pigmentierter Beschichtung, metrische Reihe - Klasse: 1 100 MPa (bei Raumtemperatur)/315 °C

Série aérospatiale - Vis à tête fraisée 100° normale, à empreinte cruciforme déportée, filetées jusqu'à proximité de la tête, en alliage de titane, anodisées, avec revêtement alumino-organique, série métrique - Classification : 1 100 MPa (à température ambiante)/315 °C

<https://catalog.sist.si/sist357269b3-da25-4001-85a4-172c99728797/o sist-pr-en-4509-2024>

Ta slovenski standard je istoveten z: prEN 4509

ICS:

49.025.20	Aluminij	Aluminium
49.025.30	Titan	Titanium
49.030.20	Sorniki, vijaki, stebelni vijaki	Bolts, screws, studs

oSIST prEN 4509:2024

en,fr,de

**EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM**

**DRAFT
prEN 4509**

October 2024

ICS 49.030.20

Will supersede EN 4509:2006

English Version

**Aerospace series - Screw, 100° countersunk normal head,
offset cruciform recess, threaded to head, in titanium alloy,
anodized, with aluminium pigmented coating, metric
series - Classification: 1 100 MPa (at ambient
temperature)/315 °C**

Série aérospatiale - Vis à tête fraisée 100° normale, à
empreinte cruciforme déportée, filetées jusqu'à
proximité de la tête, en alliage de titane, anodisées,
avec revêtement alumino-organique, série métrique -
Classification : 1 100 MPa (à température
ambiante)/315 °C

Luft- und Raumfahrt - 100° Senkschraube, mit
Flügelkreuzschlitz, Gewinde annähernd bis Kopf, aus
Titanlegierung, anodisiert, mit Aluminium
pigmentierter Beschichtung, metrische Reihe - Klasse:
1 100 MPa (bei Raumtemperatur)/315 °C

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.
<https://standards.teh.ai/standard/25-4001-85a4-f72c99728797/osist-pren-4509-2024>

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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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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 4509:2024) 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 4509:2006.

prEN 4509:2024 includes the following significant technical changes with respect to EN 4509:2006:

- normative references updated;
- Clause 3 “terms and definitions” added,
- Figure 1 updated;
- new drive code standards referred to;
- Bibliography updated.

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prEN 4509:2024 (E)

1 Scope

This document specifies the characteristics of screws, 100° countersunk normal head, offset cruciform recess, threaded to head, in titanium alloy, anodized, with aluminium pigmented coating, metric series.

Classification: 1 100 MPa¹/315 °C².

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 4474, *Aerospace series — Aluminium pigmented coatings — Coating methods*

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position*

ISO 9152, *Aerospace — Bolts, with MJ threads, in titanium alloys, strength class 1 100 MPa — Procurement specification*

ISO 14275, *Aerospace — Drives, internal, offset cruciform, ribbed — Metric series*

ISO 14276, *Aerospace — Drives, internal, offset cruciform — Metric series*

MIL-L-87132B,³ *Lubricant, CETYL Alcohol, 1-Hexadecanol, Application to Fasteners*

TR 3775,⁴ *Bolts and pins — Materials*

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3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology 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 Configuration – Dimensions – Masses

Configuration, dimensions and masses shall be according to Figure 1 and Table 1.

Dimensions and tolerances are expressed in millimetres and apply after coating.

¹ Minimum tensile strength of the material at ambient temperature.

² Maximum temperature that the screw can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the coating.

³ Published by: Department of Defense (DoD), the Pentagon, Washington, D.C.20301, USA.

⁴ Published as ASD-STAN Technical Report at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org).