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Aerospace series - Aluminium pigmented organic coatings for fasteners - Technical specification

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

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EUROPEAN STANDARD
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EN 4473

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Supersedes EN 4473:2010

English Version

**Aerospace series - Aluminium pigmented organic coatings
for fasteners - Technical specification**

Série aérospatiale - Revêtements aluminos-organiques
pour éléments de fixation - Spécification technique

Luft- und Raumfahrt - Aluminiumpigmentierte
organische Beschichtungen für Verbindungselemente -
Technische Lieferbedingungen

This European Standard was approved by CEN on 30 September 2024.

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, Türkiye and United Kingdom.



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

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EN 4473:2024 (E)

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European foreword

This document (EN 4473:2024) has been prepared by 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 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 May 2025, and conflicting national standards shall be withdrawn at the latest by May 2025.

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.

This document supersedes EN 4473:2010.

This document includes the following significant technical changes with respect to EN 4473:2010:

- editorial revision to comply with the updated layout in use;
- clarification of test requirements, e.g. coating adhesion on fasteners, measurement of coating thickness.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, 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, Türkiye and the United Kingdom.

EN 4473:2024 (E)**1 Scope**

This document specifies the performance requirements for aluminium pigmented organic coatings to be applied on titanium, titanium alloys, nickel or cobalt based alloys and corrosion resistant steels.

This specification does not cover electrical bonding and lightning strike applications of these coatings. Additional qualification tests will be agreed with the OEM upon qualification.

NOTE These coatings are not recommended for use on non-corrosion resistant steel fasteners.

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 2101, *Aerospace series — chromic acid anodizing of aluminium and wrought aluminium alloys*

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

EN 4827, *Aerospace series — Hexavalent chromium free anodizing of aluminium and aluminium alloys*

EN 6117,¹ *Aerospace series — Specification for lubrication of fasteners with cetyl alcohol*

EN ISO 2812-1, *Paints and varnishes — Determination of resistance to liquids — Part 1: Immersion in liquids other than water (ISO 2812-1)*

EN ISO 2409, *Paints and varnishes — Cross-cut test (ISO 2409)*

EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)*

ASTM B117,² *Standard Practice for Operating Salt Spray (Fog) Apparatus*

MIL-PRF-8625,³ *Anodic Coatings for Aluminum and Aluminum alloy*

NASM 1312-5,⁴ *Fastener Test Methods, Method 5: Stress Durability*

NASM 1312-12,⁴ *Fastener Test Methods, Method 12: Thickness of Metallic Coatings*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

¹ Published as ASD-STAN prEN at the date of publication of this document, available at: <https://www.asd-stan.org/>.

² Published by American Society for Testing and Materials (ASTM International), available at: <https://www.astm.org/>.

³ Published by Department of Defense (DoD), available at: <https://assist.dla.mil/online/start/>.

⁴ Published by Aerospace Industries Association (AIA), available at: <https://www.aia.aerospace.org/>.