

Aerospace series - Hexavalent chromium free anodizing
of aluminium and aluminium alloys

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 4827:2017 sisaldab Euroopa standardi EN 4827:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 4827:2017 consists of the English text of the European standard EN 4827:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

Aerospace series - Hexavalent chromium free anodizing of aluminium and aluminium alloys

Série aérospatiale - Anodisation sans chrome
hexavalent de l'aluminium et des alliages d'aluminium

Luft- und Raumfahrt - Hexavalentes chromfreies
Anodisieren von Aluminium und
Aluminiumlegierungen

This European Standard was approved by CEN on 24 September 2016.

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European foreword

This document (EN 4827:2017) 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, 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of an identical text or by endorsement, at the latest by August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

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1 Scope

This European Standard defines the requirements for hexavalent chromium free anodizing of aluminium and aluminium alloys for corrosion protection, bonding and painting.

Hard anodizing is not covered by this European Standard.

The purpose of this European Standard is to give design, quality and manufacturing requirements. It does not give complete in-house process instructions; these shall be given in the manufacturers detailed process instructions.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2284, *Aerospace series — Sulphuric acid anodizing of aluminium and wrought aluminium alloys*

EN 3665, *Aerospace series — Test methods for paints and varnishes — Filiform corrosion resistance test on aluminium alloys*

EN 4704, *Aerospace series — Tartaric-Sulphuric-Acid anodizing of aluminium and aluminium wrought alloys for corrosion protection and paint pre-treatment (TSA)*

EN 4707, *Aerospace series — Acid pickling of aluminium and aluminium alloy without hexavalent chromium*

EN 6072, *Aerospace series — Metallic materials — Test methods — Constant amplitude fatigue testing*

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

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

EN ISO 1463, *Metallic and oxide coatings — Measurement of coating thickness — Microscopical method (ISO 1463)*

EN ISO 2085, *Anodizing of aluminium and its alloys — Check for continuity of thin anodic oxidation coatings — Copper sulfate test (ISO 2085)*

EN ISO 2360, *Non-conductive coatings on non-magnetic electrically conductive basis materials — Measurement of coating thickness — Amplitude-sensitive eddy-current method (ISO 2360)*

EN ISO 9220, *Metallic coatings — Measurement of coating thickness — Scanning electron microscope method (ISO 9220)*