

Aerospace series - Passivation of corrosion resisting steels and decontamination of nickel or cobalt base alloys

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Aerospace series - Passivation of corrosion resisting steels and decontamination of nickel or cobalt base alloys

Série aérospatiale - Passivation des aciers résistant à la
corrosion et décontamination des alliages base nickel
ou cobalt

Luft- und Raumfahrt - Passivieren von
korrosionsbeständigen Stählen und Dekontaminierung
von Nickel- oder Kobaltlegierungen

This European Standard was approved by CEN on 9 July 2023.

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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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Contents

Page

European foreword	3
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions.....	4
4 Purpose of process	4
5 Applicability and limitations of the process	4
6 Information for the processor.....	5
7 Condition of the parts prior to processing.....	5
8 Pre-treatments.....	5
9 Treatment.....	6
9.1 Process approval.....	6
9.2 De-embrittlement in case of acid pickling.....	7
10 Required characteristics and inspections	7
10.1 Parts.....	7
10.1.1 Visual testing	7
10.1.2 Absence of iron contamination	8
10.2 Process.....	8
10.2.1 General.....	8
10.2.2 Water quality	8
10.2.3 Passivation and/or decontamination bath.....	8
11 Quality assurance	8
11.1 Approval of the processor.....	8
11.2 Process qualification	9
11.3 Acceptance.....	9
11.4 Fault sanction.....	9
12 Health, safety and environmental aspects.....	9
13 Designation	9
Annex A (informative) Recommended passivation solutions	10
Annex B (informative) Standard evolution form.....	13
Bibliography	15

European foreword

This document (EN 2516:2023) 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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 2516:2020.

The main changes with respect to the previous edition are listed in Annex B.

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1 Scope

This document specifies several chemical methods of passivation for corrosion resisting steels (austenitic, ferritic, martensitic and precipitation hardenable) and of decontamination for nickel or cobalt base alloys.

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

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 Purpose of process

To improve the corrosion resistance characteristics of a part after such treatments as machining, forming, tumbling and shot peening by removing foreign metal contamination due to these operations.

Passivation shall not be used on castings, welded or brazed parts, carburized or nitrided surfaces nor on parts with mating surfaces when entrapment of acids may occur.

5 Applicability and limitations of the process

This document is applicable for the corrosion resisting alloys listed in Table A.2.

This document is not applicable for:

- unalloyed or low-alloyed carbon steel;
- powder metallurgy alloys;
- surface modified steel i.e. with case-hardened, carburized or nitrided surfaces;
- soldered or brazed parts;
- items containing joints and cavities where it is not possible to mask prior to passivation or to ensure complete removal of the passivation solution.