

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

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ICS 49.040

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EUROPEAN STANDARD

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NORME EUROPÉENNE

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English Version

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

Série aérospatiale - Passivation des aciers résistants à
la corrosion et décontamination des alliages base
nickel

Luft- und Raumfahrt - Passivieren von
korrosionsbeständigen Stählen und Dekontaminierung
von Nickellegierungen

This European Standard was approved by CEN on 11 November 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
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European foreword

This document (EN 2516:2020) 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, 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of an identical text or by endorsement, at the latest by July 2020, and conflicting national standards shall be withdrawn at the latest by July 2020.

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1 Scope

This standard 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, *Aerospace series — Corrosion tests in artificial atmospheres — Salt spray tests*

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 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 specification is applicable for the following corrosion resisting alloys:

- austenitic steels;
- austenitic ferritic steels;
- martensitic chromium steels;
- ferritic steels;
- austenitic precipitation hardenable steels;
- martensitic precipitation hardenable steels;
- heat resisting nickel or cobalt base alloys.

This specification is not applicable for:

- unalloyed or low-alloyed carbon steel;