SLOVENSKI STANDARD
SIST EN 4500-003:2024

01-november-2024

Aeronavtika - Kovinski materiali - Pravila za načrtovanje in predstavljanje standardov za materiale - 003. del: Posebna pravila za toplotno odporne zlitine

Aerospace series - Metallic materials - Rules for drafting and presentation of material standards - Part 003: Specific rules for heat resisting alloys

Luft- und Raumfahrt - Metallische Werkstoffe - Regeln für das Erstellen und die Gestaltung von Werkstoffnormen - Teil 003: Besondere Regeln für hochwarmfeste Legierungen

Série aérospatiale - Matériaux métalliques - Règles pour la rédaction et la présentation des normes de matériaux - Partie 003: Règles spécifiques aux alliages résistant à chaud

Ta slovenski standard je istoveten z: **EN 4500-003:2024**

ICS:

49.025.05	Železove zlitine na splošno	Ferrous alloys in general
49.025.15	Neželezove zlitine na splošno	Non-ferrous alloys in general

SIST EN 4500-003:2024 **en,fr,de**

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Série aérospatiale - Matériaux métalliques - Règles pour la rédaction et la présentation des normes de matériaux - Partie 003 : Règles spécifiques aux alliages résistant à chaud

Luft- und Raumfahrt - Metallische Werkstoffe - Regeln für das Erstellen und die Gestaltung von Werkstoffnormen - Teil 003: Besondere Regeln für hochwarmfeste Legierungen

This European Standard was approved by CEN on 17 June 2024.

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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 foreword

This document (EN 4500-003:2024) 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 document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2025, and conflicting national standards shall be withdrawn at the latest by February 2025.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 4500-003:2012.

The main changes with respect to the previous edition are as follows:

EN 4500-003 (P2), 10/2012 — XXXX.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document: 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.

Introduction

This document is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

The EN 4500 series (*Aerospace series — Metallic materials — Rules for drafting and presentation of material standards*) is composed by the following documents:

— General rules	EN 4500-001;
— Specific rules for aluminium, aluminium alloys and magnesium alloys	EN 4500-002;
— Specific rules for heat-resisting alloys	EN 4500-003;
— Specific rules for titanium and titanium alloys	EN 4500-004;
— Specific rules for steels	EN 4500-005;
— Specific rules for filler metals for welding	EN 4500-002 to EN 4500-005;
— Specific rules for filler metals for brazing	EN 4500-006.

1 Scope

The EN 4500 series specifies the rules for the drafting and presentation of metallic material standards for aerospace applications. This Part 003 specifies the “Specific rules for heat resisting 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 4500-001, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 001: General rules*

EN 4259, *Aerospace series — Metallic materials — Definition of general terms*

EN 10027-1, *Designation systems for steels — Part 1: Steel names*

EN 10027-2, *Designation systems for steels — Part 2: Numerical system*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4259 and EN 4500-001 and the following apply.

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 Rules for drafting a European standard for aerospace metallic materials

4.1 General

4.2 Title

4.2.1 General

Should be according to EN 4500-001 and Annex A of this document.

The following are examples of descriptions which shall be used.

4.2.2 Method of melting

Complete in accordance with EN 4500-001 using one or more of the following terms:

— air melted;

— vacuum melted;

— vacuum refined;

— vacuum arc melted;

— vacuum arc remelted;

— electro-slag remelted;

— consumable electrode remelted;

— inert gas atomised;

— rotating electrode atomised;

— rotating crucible atomised;

— water atomised.

4.2.3 Form entries

a) Sheets, strips, plates.

The terms may be qualified with one of the following terms:

1) rolled;

2) cold rolled;

3) hot rolled.

b) Bars.

The term may be qualified with one or more of the following terms:

1) hot rolled;

2) cold rolled;

3) drawn;

4) extruded.

c) Sections.

The term may be qualified with one or more of the following terms:

1) extruded;

2) hot rolled.

d) Tubes.

The term may be qualified with one or more of the following terms:

1) rolled;

2) drawn;

3) extruded;

4) seamless;

5) welded.

e) Wires.

The term may be qualified with one or more of the following terms:

1) drawn;

2) hot rolled.

f) Forging stock.

g) Forgings.

The term may be qualified with one or more of the following terms:

1) die;

2) hand.

h) Remelting stock.

i) Castings.

The term may be qualified with one or more of the following terms:

1) sand;

2) chill;

3) investment;

4) centrifugal;

5) precision;

6) hot isostatically pressed (hipped).

4.2.4 Form entries for powder metallurgy

— Powder.

— Compacted material.

— Part.

The term may be qualified with one or more of the following terms:

o hot isostatically pressed (hipped);

o extruded;

o forged.