



SLOVENSKI STANDARD SIST EN 4500-001:2024

01-november-2024

Aeronavtika - Kovinski materiali - Pravila za načrtovanje in predstavljanje standardov za materiale - 001. del: Splošna pravila

Aerospace series - Metallic materials - Rules for drafting and presentation of material standards - Part 001: General rules

Luft- und Raumfahrt - Metallische Werkstoffe - Regeln für das Erstellen und die Gestaltung von Werkstoffnormen - Teil 001: Allgemeine Regeln

Série aérospatiale - Matériaux métalliques - Règles pour la rédaction et la présentation des normes de matériaux - Partie 001: Règles générales

Ta slovenski standard je istoveten z: EN 4500-001:2024

SIST EN 4500-001:2024

ICS:

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

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Supersedes EN 4500-001:2012

English Version

Aerospace series - Metallic materials - Rules for drafting and presentation of material standards - Part 001: General rules

Série aérospatiale - Matériaux métalliques - Règles
pour la rédaction et la présentation des normes de
matériaux - Partie 001 : Règles générales

Luft- und Raumfahrt - Metallische Werkstoffe - Regeln
für das Erstellen und die Gestaltung von
Werkstoffnormen - Teil 001: Allgemeine Regeln

This European Standard was approved by CEN on 17 June 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.

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

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Contents

Page

| | |
|--|----|
| European foreword | 4 |
| Introduction | 5 |
| 1 Scope..... | 6 |
| 2 Normative references..... | 6 |
| 3 Terms and definitions | 7 |
| 4 Rules for drafting a European standard for aerospace metallic materials..... | 7 |
| 4.1 Document structure..... | 7 |
| 4.2 Titles of the material standard | 7 |
| 4.3 Introduction..... | 8 |
| 4.4 Scope..... | 8 |
| 4.5 Normative references..... | 8 |
| 4.6 Terms and definitions..... | 8 |
| 4.7 Table 1 (1 of 3): corresponds to template 1 given in Annex A..... | 9 |
| 4.7.1 General..... | 9 |
| 4.7.2 Line 1: Material designation | 9 |
| 4.7.3 Line 2: Chemical composition..... | 10 |
| 4.7.4 Line 3: Method of melting | 10 |
| 4.7.5 Line 4.1: Form | 10 |
| 4.7.6 Line 4.2: Method of production..... | 11 |
| 4.7.7 Line 4.3: Further intended processing..... | 11 |
| 4.7.8 Line 4.4: Limit dimension(s)..... | 11 |
| 4.7.9 Line 5.1: Technical specification | 11 |
| 4.7.10 Line 5.2: Dimensional standard..... | 11 |
| 4.7.11 Line 6.1: Delivery condition and Heat treatment..... | 11 |
| 4.7.12 Line 6.2: Delivery condition code..... | 12 |
| 4.7.13 Line 7: Use condition and Heat treatment | 12 |
| 4.7.14 Line 8.1: Test sample(s)..... | 13 |
| 4.7.15 Line 8.2: Test piece(s) | 13 |
| 4.7.16 Line 8.3: Heat treatment..... | 13 |
| 4.7.17 Line 9: Dimensions concerned | 14 |
| 4.7.18 Line 10: Thickness of cladding on each face | 14 |
| 4.7.19 Line 11: Direction of test piece | 14 |
| 4.7.20 Lines 12 to 16: Tensile (T) | 15 |
| 4.7.21 Line 17: Hardness | 15 |
| 4.7.22 Line 18: Shear strength..... | 15 |
| 4.7.23 Line 19: Bending..... | 16 |
| 4.7.24 Line 20: Impact strength | 16 |
| 4.7.25 Lines 21 to 26: Creep (C) | 16 |
| 4.7.26 Line 27: Notes (see line 98) | 17 |
| 4.8 Table 1 (2 of 3): corresponds to template 2 given in Annex B..... | 17 |
| 4.8.1 General..... | 17 |
| 4.8.2 Line 28 | 18 |
| 4.8.3 Line 29: Reference heat treatment..... | 18 |
| 4.8.4 Lines 30 to 94 | 18 |
| 4.8.5 Line 95: Marking inspection | 19 |

| | | |
|----------------------------|--|-----------|
| 4.8.6 | Line 96: Dimensional inspection..... | 19 |
| 4.8.7 | Line 97 | 19 |
| 4.8.8 | Line 98: Notes..... | 19 |
| 4.8.9 | Line 99: Typical use | 20 |
| 4.9 | Table 1 (3 of 3): corresponds to template 3 given in Annex C | 20 |
| 4.9.1 | General | 20 |
| 4.9.2 | Opening line 100..... | 20 |
| 4.9.3 | Completion of semi-finished product qualification requirements..... | 21 |
| Annex A (normative) | Template 1..... | 22 |
| Annex B (normative) | Template 2..... | 23 |
| Annex C (normative) | Template 3..... | 24 |
| Annex D (normative) | Allocation of numbers to optional lines | 25 |
| Bibliography | | 26 |

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EN 4500-001:2024(E)**European foreword**

This document (EN 4500-001:2024) 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 4500-001:2012.

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

EN 4500-001 (P2), 10/2012 — Editorial improvements and update of the scope to change “single mode fibre core” to “simplex fibre”.

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.

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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.

Basis for the drafting of all European standards is CEN/CENELEC Internal Regulations — Part 3: Principles and rules for the structure and drafting of CEN and CENELEC documents.

Document Preview

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EN 4500-001:2024(E)**1 Scope**

The EN 4500 series specifies the rules for the drafting and presentation of metallic material standards for aerospace applications.

This Part 001 specifies the “General rules” framework valid for all parts.

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 2002-001,¹ *Aerospace series — Metallic materials — Test methods — Part 001: Tensile testing at ambient temperature*

EN 2032-2, *Aerospace series — Metallic materials — Part 2: Coding of metallurgical condition in delivery condition*

EN 4258, *Aerospace series — Metallic materials — General organization of standardization — Links between types of European standards and their use*

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

EN 4500-002, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 002: Specific rules for aluminium, aluminium alloys and magnesium alloys*

EN 4500-003, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 003: Specific rules for heat resisting alloys*

EN 4500-004, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 004: Specific rules for titanium and titanium alloys*

EN 4500-005, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 005: Specific rules for steels*

EN 4500-006, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 006: Specific rules for filler metals for brazing*

ISO 80000-1, *Quantities and units — Part 1: General*

ISO 80000-2, *Quantities and units — Part 2: Mathematics*

ISO 80000-3, *Quantities and units — Part 3: Space and time*

ISO 80000-4, *Quantities and units — Part 4: Mechanics*

ISO 80000-5, *Quantities and units — Part 5: Thermodynamics*

ISO 80000-10, *Quantities and units — Part 10: Atomic and nuclear physics*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4258 and EN 4259 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 Document structure

- a) Title of the material standard.
- b) Introduction.
- c) Clause 1: Scope.
- d) Clause 2: Normative references.
- e) Clause 3: Terms and definitions.
- f) Clause 4: Requirements.
- g) Bibliography (if appropriate).
- h) Annexes (if appropriate).

4.2 Titles of the material standard

The title shall give sufficient information to unambiguously identify the semi-finished product, in the use condition (see 4.7.13).

Consequently:

- 1) the same title shall not be used for different material standards;
- 2) overlapping of mechanical property limits for otherwise identical material standards shall not normally be permitted.

Each part of the title shall consist of one or several different lines:

- “Aerospace series”;
- the family of metallic materials, followed by the designation of the metallic material (see 4.7.2);
- method of melting (optional for aluminium and aluminium base alloys or magnesium and magnesium base alloys);
- use condition and heat treatment;

EN 4500-001:2024(E)

- the forms written in plural and the method of production and, if appropriate, further intended processing;
- limiting dimensions;
- relevant mechanical property or physical property limits, if appropriate.

4.3 Introduction

This clause shall read:

- “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.”;
- “This document has been prepared in accordance with EN 4500-002” or “EN 4500-003” or “EN 4500-004” or “EN 4500-005” or “EN 4500-006”.

4.4 Scope

This clause shall read: “This document specifies the requirements relating to:”

Repeat all information in the title, presented in the same format, followed by “for aerospace applications”.

If necessary, further information may be added to clarify the scope.

EXAMPLE

NOTE Other common designation used by the industry: *(insert designation)*.

List of designations for *(material family)* can be found in TR XXXX.

4.5 Normative references

This clause shall read:

“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.”

Followed by the list of documents with their titles, to which normative reference is made in the text.

4.6 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 <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>