



# SLOVENSKI STANDARD SIST EN 4500-005:2024

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**Aeronavtika - Kovinski materiali - Pravila za načrtovanje in predstavljanje standardov za materiale - 005. del: Posebna pravila za jekla**

Aerospace series - Metallic materials - Rules for drafting and presentation of material standards - Part 005: Specific rules for steels

Luft- und Raumfahrt - Metallische Werkstoffe - Regeln für das Erstellen und die Gestaltung von Werkstoffnormen - Teil 005: Besondere Regeln für Stähle

Série aérospatiale - Matériaux métalliques - Règles pour la rédaction et la présentation des normes de matériaux - Partie 005: Règles spécifiques aux aciers

**Ta slovenski standard je istoveten z: EN 4500-005:2024**

SIST EN 4500-005:2024

**ICS:**

49.025.10      Jekla                                      Steels

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EUROPEAN STANDARD

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NORME EUROPÉENNE

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Supersedes EN 4500-005:2012

English Version

## Aerospace series - Metallic materials - Rules for drafting and presentation of material standards - Part 005: Specific rules for steels

Série aérospatiale - Matériaux métalliques - Règles  
pour la rédaction et la présentation des normes de  
matériaux - Partie 005 : Règles spécifiques aux aciers

Luft- und Raumfahrt - Metallische Werkstoffe - Regeln  
für das Erstellen und die Gestaltung von  
Werkstoffnormen - Teil 005: Besondere Regeln für  
Stähle

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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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**EN 4500-005:2024(E)****European foreword**

This document (EN 4500-005:2024) 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 4500-005:2012.

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

EN 4500-005 (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.

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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.

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**EN 4500-005:2024(E)****1 Scope**

Text of the scope.

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

EN 4500-001, *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards — Part 001: General rules*

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

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

EN 10083-1, *Steels for quenching and tempering — Part 1: General technical delivery conditions*

**3 Terms and definitions**

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

Examples given in Annexes are only intended to illustrate the rules for drafting and presentation and might not correspond to real standardized EN semi-finished products. Technological development can require the use of terms additional to those listed.

**4.2 Title****4.2.1 General**

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

The designation shall be in accordance with EN 10027-1 and EN 10027-2.

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 induction melted;
- vacuum refined;
- vacuum arc remelted;
- electro-slag remelted;
- consumable electrode remelted.

#### 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) rolled;
- 2) hot rolled;
- 3) cold rolled;
- 4) drawn;
- 5) extruded;
- 6) forged.

c) Sections.

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

- 1) rolled;
- 2) hot rolled;
- 3) cold rolled;
- 4) drawn;

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- 5) extruded;
- 6) forged.

## 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) hot drawn;
- 2) cold drawn;
- 3) hot rolled;
- 4) cold rolled.

## f) Forging stock.

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## g) Forgings.

## 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) hot isostatically pressed (hipped).

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