
Aeronavtika - Kovinski materiali - Splošna organizacija standardizacije - Povezava med vrstami evropskih standardov in njihovo uporabo

Aerospace series - Metallic materials - General organization of standardization - Link between types of European Standards and their use

Luft- und Raumfahrt - Metallische Werkstoffe - Allgemeine Gliederung der Normung - Verknüpfung der Arten von Europäischen Normen und ihre Anwendung

Série aérospatiale - Matériaux métalliques - Organisation générale de la normalisation - Liens entre les types de Normes Européennes et leur utilisation

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Ta slovenski standard je istoveten z: prEN 4258

ICS:

01.120	Standardizacija. Splošna pravila	Standardization. General rules
49.025.05	Železove zlitine na splošno	Ferrous alloys in general

oSIST prEN 4258:2021

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 4258

September 2021

ICS 49.025.01

Will supersede EN 4258:1998

English Version

**Aerospace series - Metallic materials - General
organization of standardization - Link between types of
European Standards and their use**

Série aérospatiale - Matériaux métalliques -
Organisation générale de la normalisation - Liens entre
les types de Normes Européennes et leur utilisation

Luft- und Raumfahrt - Metallische Werkstoffe -
Allgemeine Gliederung der Normung - Verknüpfung
der Arten von Europäischen Normen und ihre
Anwendung

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Contents

Page

European foreword	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	6
4 Levels of European Standards	6
4.1 General.....	6
4.2 General standard (level 0).....	6
4.3 Basic standards (level 1)	7
4.4 Standards specifying rules (level 2).....	7
4.5 Semi-finished product definition documents (level 3)	7
4.5.1 Material standards	7
4.5.2 Technical specifications	7
4.5.3 Test method standards	8
4.5.4 Dimensional standards.....	8
4.5.5 Designation standards for semi-finished products	8
4.5.6 Technical Reports.....	8
4.6 Supplementary standards for quality assurance (level 4)	8
5 Links between European Standards and their use	8
5.1 Requirements for level 1, 2 and 4 standards	8
5.2 Requirements for level 3 standards.....	9
5.3 Technical Reports.....	9
Annex A (normative) New organization for aerospace standards related to metallic materials	10
Annex B (normative) Use of the relevant material standard.....	12
B.1 Form 1	12
B.2 Form 2	12
B.3 Form 3	12
Annex C (normative) Intermediate procedure.....	13
Bibliography	15

European foreword

This document (prEN 4258:2021) 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 is currently submitted to the CEN Enquiry.

This document will supersede EN 4258:1998.

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Introduction

For the purpose of standardization of metallic materials, ASD-STAN had originally based the organization of this standardization on a system which provided strong interlinks between a material standard referring to EN 2500 and its supporting standards.

Since these links did not allow the partial use of the supporting standards, the following amendments have been introduced to ensure that:

- strongly interlinked standards are limited to those strictly necessary to ensure coherency;
- other standards may be either used, or replaced by standards of another origin, at the purchaser's discretion.

The basic change in these links is that the dimensional standards and designation standard for semi-finished products, where applicable, have been dissociated from the material standard. Additionally, product qualification procedures are being introduced.

Pending the updating of the standards, these two organizations exist in parallel:

- the original one described by EN 2500;
- the new one described in this document (see Annex A and Annex B).

To enable progressive updating of the standards, an intermediate procedure is to be followed, as described in Annex C, pending full introduction of the new organization.

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1 Scope

This document specifies the general organization of metallic material standards for aerospace applications, their links with other types of European Standards and their use.

It corresponds to level 0 (see 4.2).

From the date of publication of this document, specifications for different welding and brazing products can be written in only one standard instead of separated material standard. Already existing material standards for filler metals for welding and for brazing can continue to follow this organization.

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 2032-001, *Aerospace series — Metallic materials — Part 001: Conventional designation*

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

EN 2043, *Aerospace series — Metallic materials — General requirements for semi-finished product qualification (excluding forgings and castings)*

EN 2078, *Aerospace series — Metallic materials — Manufacturing schedule, inspection schedule, inspection and test report — Definition, general principles, preparation and approval*

EN 4000, *Aerospace series — Metallic materials — Rules for the drafting and presentation of dimensional standards for metallic semi-finished products*

EN 4179, *Aerospace series — Qualification and approval of personnel for non-destructive testing*

EN 4259, *Aerospace series — Metallic materials — Definition of general terms*¹

EN 4260, *Aerospace series — Metallic materials — Rules for drafting and presentation of technical specifications*¹

EN 4261, *Aerospace series — Metallic materials — Rules for drafting and presentation of test method standards*¹

EN 4268, *Aerospace series — Metallic materials — Heat treatment facilities — General requirements*

EN 4500 (all parts), *Aerospace series — Metallic materials — Rules for drafting and presentation of material standards*

TR 2410, *Metallic materials — Relationship between dimensional standards and material standards*²

¹ Published as ASD-STAN Standard at the date of publication of this document by AeroSpace and Defence Industries Association of Europe — Standardization (ASD-STAN), <http://www.asd-stan.org/>.

² Published as ASD-STAN Technical Report at the date of publication of this document by AeroSpace and Defence Industries Association of Europe — Standardization (ASD-STAN), <http://www.asd-stan.org/>.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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/>

3.1

family of metallic materials

group of metallic materials characterized by a base element or a group of base elements in several different semi-finished product forms

Note 1 to entry: These product forms may consist of the following families:

- aluminium and aluminium alloys;
- magnesium alloys;
- heat resisting alloys (nickel or cobalt or iron base);
- titanium and titanium alloys;
- steels;
- filler metals for brazing.

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3.2

semi-finished products

generic term used to indicate that the material as supplied does not necessarily have any relation to the exact form, dimensions or condition in which that material is used as a final component

Note 1 to entry: This term may refer to one of the following types:

- wrought products (e.g. bar, sheet, sections) or cast products (e.g. rod, amorphous brazing foil) characterized by their form within a range of standardized dimensions;
- products of non-standardized form and dimensions produced by the same metallurgical technique (e.g. forging stock, remelting stock);
- blanks manufactured from the products stated above, of non-standardized form and dimension (e.g. forgings, castings).

4 Levels of European Standards

4.1 General

This document defines five levels of European Standards, numbered from 0 to 4 (see Annex A).

For the intermediate procedure, see Annex C.

4.2 General standard (level 0)

Explanatory standard for the organization of the whole collection: EN 4258.

4.3 Basic standards (level 1)

They define the wording and/or specify conventional rules that provide the basis of understanding between the writer and the user of standards specifying rules (see 4.4) and semi-finished product definition documents (see 4.5).

They are the following:

- a) definitions of the general terms: EN 4259;
- b) definitions of manufacturing schedule;
- c) inspection schedule, inspection and test report: EN 2078;
- d) material designation: EN 2032-001;
- e) coding of metallurgical condition in the delivery condition: EN 2032-2: Standards specifying rules (level 2).

4.4 Standards specifying rules (level 2)

They specify the specific rules for the drafting and presentation of the semi-finished product definition documents (see 4.5).

They are the following:

- a) material standards: EN 4500 series;
- b) technical specifications: EN 4260;
- c) test method standards: EN 4261;
- d) dimensional standards: EN 4000;

and during the intermediate procedure:

- e) general requirements for qualification; EN 2043.

4.5 Semi-finished product definition documents (level 3)

4.5.1 Material standards

They specify a series of technical requirements relating to a metallic material semi-finished product, in one or several delivery conditions and only one use condition.

4.5.2 Technical specifications

They specify, for the semi-finished products of a metallic material family, general and specific technical requirements related to:

- a) manufacturing;
- b) quality assurance (e.g. qualification, acceptance);
- c) the preparation and procedures for testing (including the frequency of testing);
- d) the order and shipment.

prEN 4258:2021 (E)**4.5.3 Test method standards**

They specify instructions for the determination of characteristics concerning:

- a) principle;
- b) reagents and/or associated materials;
- c) test equipment;
- d) preparation and retention of test samples and/or test pieces;
- e) procedure(s).

4.5.4 Dimensional standards

They specify, for each form of semi-finished product in a family of metallic materials:

- a) geometry;
- b) dimensions;
- c) associated tolerances.

4.5.5 Designation standards for semi-finished products

They specify the rules for designation of metallic semi-finished products, e.g.: EN 2600.

4.5.6 Technical Reports

They group information in a practical way, e.g. relationship between dimensional standard and material standards: TR 2410.

4.6 Supplementary standards for quality assurance (level 4)

They specify supplementary quality assurance requirements concerning e.g.:

- a) personnel;
- b) facilities;
- c) processes.

EXAMPLE 1 Qualification and approval of personnel for non-destructive testing: EN 4179;

EXAMPLE 2 Heat treatment facilities: EN 4268.

5 Links between European Standards and their use**5.1 Requirements for level 1, 2 and 4 standards**

- a) Basic standards (level 1) shall be systematically used in defining the semi-finished product definition documents (level 3), see 5.2.
- b) Rules (level 2) for the drafting and presentation of semi-finished product definition documents (level 3), shall be systematically applied.