Aluminium and aluminium alloys - Sheet, strip and plate - Part 1: Technical conditions for inspection and delivery



EESTI STANDARDI EESSÕNA

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.		This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.		
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EUROPEAN STANDARD NORME EUROPÉENNE

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Supersedes EN 485-1:2008+A1:2009

English Version

Aluminium and aluminium alloys - Sheet, strip and plate - Part 1: Technical conditions for inspection and delivery

Aluminium et alliages d'aluminium - Tôles, bandes et tôles épaisses - Partie 1: Conditions techniques de contrôle et de livraison Aluminium und Aluminiumlegierungen - Bänder, Bleche und Platten - Teil 1: Technische Lieferbedingungen

This European Standard was approved by CEN on 12 June 2016.

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

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European foreword

This document (EN 485-1:2016) has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2017, and conflicting national standards shall be withdrawn at the latest by January 2017.

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 485-1:2008+A1:2009.

EN 485 comprises the following parts under the general title "*Aluminium and aluminium alloys — Sheet, strip and plate*":

- Part 1: Technical conditions for inspection and delivery
- Part 2: Mechanical properties
- Part 3: Tolerances on dimensions and form for hot-rolled products
- Part 4: Tolerances on shape and dimensions for cold-rolled products

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1 Scope

This document specifies the technical conditions for inspection and delivery of wrought aluminium and wrought aluminium alloy sheet, strip and plate for general applications. It also includes provisions for ordering and testing.

It applies to products with a thickness over 0,20 mm up to and including 400 mm.

For many special applications of aluminium strip, sheet and plate, specific European Standards exist, where different or additional requirements are formulated and the appropriate alloys and tempers are selected: see Annex A. Most of these special European Standards refer to provisions of this document.

The selection of the relevant special European Standards is under the responsibility of the purchaser.

Whenever the application involves special properties, such as corrosion resistance, toughness, fatigue strength, surface appearance and welding properties, the user should consult the supplier and consider the relevant special European Standard, as applicable.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 485-2, Aluminium and aluminium alloys - Sheet, strip and plate - Part 2: Mechanical properties

EN 485-3, Aluminium and aluminium alloys - Sheet, strip and plate - Part 3: Tolerances on dimensions and form for hot-rolled products

EN 485-4, Aluminium and aluminium alloys - Sheet, strip and plate - Part 4: Tolerances on shape and dimensions for cold-rolled products

EN 515, Aluminium and aluminium alloys - Wrought products - Temper designations

EN 541, Aluminium and aluminium alloys - Rolled products for cans, closures and lids - Specifications

EN 573-3, Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 3: Chemical composition and form of products

EN 602, Aluminium and aluminium alloys - Wrought products - Chemical composition of semi-finished products used for the fabrication of articles for use in contact with foodstuff

EN 603 (all parts), Aluminium and aluminium alloys — Wrought forging stock

EN 683-1, Aluminium and aluminium alloys - Finstock - Part 1: Technical conditions for inspection and delivery

EN 851, Aluminium and aluminium alloys - Circle and circle stock for the production of culinary utensils - Specifications

EN 941, Aluminium and aluminium alloys - Circle and circle stock for the production of general applications - Specifications

EN 1386, Aluminium and aluminium alloys - Tread plate - Specifications

EN 1396, Aluminium and aluminium alloys - Coil coated sheet and strip for general applications - Specifications

EN 1669, Aluminium and aluminium alloys - Test methods - Earing test for sheet and strip

EN 2004-1, Aerospace series - Test methods for aluminium and aluminium alloy products - Part 1: Determination of electrical conductivity of wrought aluminium alloys

EN 10204, Metallic products - Types of inspection documents

EN 12258-1, Aluminium and aluminium alloys - Terms and definitions - Part 1: General terms

EN 12392, Aluminium and aluminium alloys - Wrought products and cast products - Special requirements for products intended for the production of pressure equipment

EN 12482-1, Aluminium and aluminium alloys - Reroll stock for general applications - Part 1: Specifications for hot rolled reroll stock

EN 12482-2, Aluminium and aluminium alloys - Reroll stock for general applications - Part 2: Specifications for cold rolled reroll stock

EN 13195, Aluminium and aluminium alloys - Specifications for wrought and cast products for marine applications (shipbuilding, marine and offshore)

EN 13981-2, Aluminium and aluminium alloys - Products for structural railway applications - Technical conditions for inspection and delivery - Part 2: Plates and sheets

EN 14121, Aluminium and aluminium alloys - Sheet, strip and plate for electrotechnical applications

EN 14242, Aluminium and aluminium alloys - Chemical analysis - Inductively coupled plasma optical emission spectral analysis

EN 14286, Aluminium and aluminium alloys - Weldable rolled products for tanks for the storage and transportation of dangerous goods

EN 14287, Aluminium and aluminium alloys - Specific requirements on the chemical composition of products intended to be used for the manufacture of packaging and packaging components

EN 14361, Aluminium and aluminium alloys - Chemical analysis - Sampling from metal melts

EN 14392, Aluminium and aluminium alloys - Requirements for anodised products for use in contact with foodstuff

EN 15088, Aluminium and aluminium alloys - Structural products for construction works - Technical conditions for inspection and delivery

EN ISO 6892-1, Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)

EN ISO 7438, Metallic materials - Bend test (ISO 7438)

EN ISO 20482, Metallic materials - Sheet and strip - Erichsen cupping test (ISO 20482)

ISO 9591, Corrosion of aluminium alloys — Determination of resistance to stress corrosion cracking

ASTM G34, Standard Test Method for Exfoliation Corrosion Susceptibility in 2XXX and 7XXX Series Aluminum Alloys (EXCO Test)

ASTM G47, Standard Test Method for Determining Susceptibility to Stress-Corrosion Cracking of 2XXX and 7XXX Aluminum Alloy Products

ASTM G66, Standard Test Method for Visual Assessment of Exfoliation Corrosion Susceptibility of 5XXX Series Aluminum Alloys (ASSET Test)

ASTM G67, Standard Test Method for Determining the Susceptibility to Intergranular Corrosion of 5XXX Series Aluminum Alloys by Mass Loss After Exposure to Nitric Acid (NAMLT Test)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12258-1 and the following apply.

3.1

sheet/plate

flat rolled product of rectangular cross-section with uniform thickness between 0,20 mm and 6 mm for sheet or above 6 mm for plate, supplied in straight lengths (i.e. flat) usually with trimmed or sawn edges

Note 1 to entry: For sheet, the thickness does not exceed one-tenth of the width.

Note 2 to entry: Corrugated, embossed (with patterns, for example grooves, ribs, checkers, tears, buttons, lozenges), coated, edge conditioned and perforated products in this general form when derived from sheet as defined above are classified as sheet.

Note 3 to entry: Flat sheets and plates material between 3 mm and 15 mm are sometimes called "shate".

3.2

strip

flat rolled product of rectangular cross-section with uniform thickness over 0,20 mm, supplied in coils usually with trimmed edges

Note 1 to entry: The thickness does not exceed one-tenth of the width.

Note 2 to entry: Corrugated, embossed (with patterns, for example grooves, ribs, checkers, tears, buttons, lozenges), coated, edge conditioned and perforated products in this general form when derived from sheet as defined above are classified as sheet.

Note 3 to entry: "Strip" is sometimes called "coil".

3.3

order document

document or set of documents agreed between supplier and purchaser at the time of ordering

Note 1 to entry: An order document can be an order of the purchaser confirmed by the supplier or a quotation of the supplier confirmed by the purchaser.

4 Ordering information

The order document shall contain the following:

- a) form and type of product:
 - form of the product (sheet, strip, plate, etc.);