



SLOVENSKI STANDARD SIST EN 755-1:1998

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Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 1: Technical conditions for inspection and delivery

Aluminium und Aluminiumlegierungen - Stranggepreßte Stangen, Rohre und Profile - Teil 1: Technische Lieferbedingungen

Aluminium et alliages d'aluminium - Barres, tubes et profilés filés - Partie 1: Conditions techniques de contrôle et de livraison

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ICS:

77.150.10 Alumijski izdelki Aluminium products

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EUROPEAN STANDARD

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ICS 77.150.10

Descriptors: aluminium, aluminium alloys, wrought products, extruded products, metal bars, metal tubes, metal sections, delivery, inspection, tests, specifications

English version

Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 1: Technical conditions for inspection and delivery

Aluminium et alliages d'aluminium - Barres, tubes et profilés filés - Partie 1: Conditions techniques de contrôle et de livraison

Aluminium und Aluminiumlegierungen - Stranggepreßte Stangen, Rohre und Profile - Teil 1: Technische Lieferbedingungen

This European Standard was approved by CEN on 1997-03-10. 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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard 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 October 1997, and conflicting national standards shall be withdrawn at the latest by October 1997.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 5 "Extruded and drawn products" to prepare the following standard :

EN 755-1 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 1 : Technical conditions for inspection and delivery

This standard is part of a set of nine standards. The other standards deal with :

EN 755-2 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 2 : Mechanical properties

EN 755-3 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 3 : Round bars, tolerances on dimensions and form

EN 755-4 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 4 : Square bars, tolerances on dimensions and form

EN 755-5 Aluminium and aluminium alloys - Extruded rod/bar, tube and profile - Part 5 : Rectangular bars, tolerances on dimensions and form

EN 755-6 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 6 : Hexagonal bars, tolerances on dimensions and form

prEN 755-7 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 7 : Seamless tubes, tolerances on dimensions and form

prEN 755-8 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 8 : Porthole tubes, tolerances on dimensions and form

prEN 755-9 Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 9 : Profiles, tolerances on dimensions and form

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According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This part of EN 755 specifies the technical conditions for inspection and delivery of wrought aluminium and aluminium alloy extruded rod/bar, tube and profile for general engineering applications.

This specification excludes forging stock, EN AW-6060 / EN AW-6063 extruded precision profiles, and products delivered in coils.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 515	Aluminium and aluminium alloys - Wrought products - Temper designations
EN 573-3	Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 3 : Chemical composition
EN 755-2	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 2 : Mechanical properties
EN 755-3	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 3 : Round bars, tolerances on dimensions and form
EN 755-4	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 4 : Square bars, tolerances on dimensions and form
EN 755-5	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 5 : Rectangular bars, tolerances on dimensions and form
EN 755-6	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 6 : Hexagonal bars, tolerances on dimensions and form
prEN 755-7	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 7 : Seamless tubes, tolerances on dimensions and form
prEN 755-8	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 8 : Porthole tubes, tolerances on dimensions and form
prEN 755-9	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 9 : Profiles, tolerances on dimensions and form
EN 10002-1	Metallic materials - Tensile testing - Part 1 : Method of test (at ambient temperature)
EN 10204	Metallic products - Types of inspection documents

3 Definitions

For the purposes of this standard, the following definitions apply :

3.1 extruded rod/bar

Solid extruded product of uniform cross-section along its whole length. Rod is normally less than 6 mm in diameter or minor dimension, bar is greater than 6 mm in diameter or minor dimension.

NOTE 1 : These cross-sections are in the shape of circle, square, rectangle, or regular hexagon. Products with a square, rectangular or regular hexagonal cross-section can have corners rounded along their whole length.

NOTE 2 : For rectangular bars :

- the thickness exceeds one-tenth of the width ;
- the term "rectangular bar" includes "flattened circles" and "modified rectangles" of which two opposite sides are convex arcs, the other two sides being straight, of equal length and parallel.

3.2 extruded tube

Extruded hollow product of uniform cross-section with only one enclosed void along its whole length, and with a uniform wall thickness. The cross-sections are in the shape of circle, square, rectangle, regular hexagon and regular octagon. Products with a square, rectangular, regular hexagonal or regular octagonal cross sections can have corners rounded along their whole length.

3.3 seamless tube

Tube in which there is no split or deliberate longitudinal bonding of edges by pressure, fusion or mechanical interlocking.

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3.4 porthole/bridge tube (standards.iteh.ai)

Tube produced by extrusion of a solid billet through a porthole/bridge die.

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3.5 porthole/bridge die

Extrusion die that incorporates a mandrel as an integral part of the die assembly.

NOTE : Bridge, spider and self-stripping dies are special forms of porthole/bridge die.

3.6 profile

Extruded product of uniform cross-section along its whole length, and with a cross-section other than rod/bar, wire, tube, sheet or strip.

3.7 hollow profile

Extruded profile in which the cross-section includes either one enclosed void, provided that the cross-section is other than a tube, or more than one enclosed void.

3.8 solid profile

Extruded profile in which the cross-section does not include any enclosed void.

3.9 inspection lot

Consignment, or part thereof, submitted for inspection, comprising products of the same grade or alloy, form, temper, shape, thickness or cross-section and processed in the same manner.

3.10 heat treatment batch or lot

Quantity of products of the same grade or alloy, form, thickness or cross-section and produced in the same way, heat-treated in one furnace load, or such products so solution-treated and subsequently precipitation-treated in one furnace load. More than one solution-treatment lot may be included in the precipitation furnace load.

3.11 sample

One or more products taken from an inspection lot.

3.12 specimen

One or more pieces taken from each product in the sample, for the purpose of producing test pieces.

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3.13 test piece

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Piece taken from each specimen and suitably prepared for the test.

3.14 test

Operation to which the test piece is subjected in order to measure or classify a property.

4 Orders or tenders

The order or tender shall define the product required and shall contain the following information :

a) the form and type of product :

- the form of the product (extruded rod/bar, tube or profile). If tube, whether seamless or porthole/bridge;
- the designation of aluminium or aluminium alloy ;
- the customer application. In particular when subsequent anodising by the customer is intended, this shall be clearly stated on the order ;

b) the temper of the material for delivery according to EN 515 and, if different, the temper for use ;

c) the number of this European Standard or a specification number, or where none exists, the properties agreed between supplier and purchaser ;

d) the dimensions and shape of the product :

1) round tube :

- outside/inside diameter ¹⁾ ;
- wall thickness ¹⁾ ;
- length ;

2) round bar :

- diameter ;
- length ;

3) square and hexagonal bar :

- width across flats ;
- length ;

4) rectangular bar :

- width ;
- thickness ;
- length ;

¹⁾ Only two of these dimensions can be specified, but not all three.

- 5) all other cases :
- drawing for cross section ;
 - length ;
- e) the tolerances on dimensions and form, refer to the appropriate European Standard if not specified on the drawing ;
- f) the quantity :
- weight ;
 - number of pieces ;
 - total length ;
 - tolerance on quantity ;
- g) any requirements for certificates of conformity, test and/or analysis reports or inspection certificates ;
- h) any special requirements agreed between supplier and purchaser :
- marking of products ;
 - references to drawings, part numbers, etc. ;
 - additional or special testing ;
 - surface finish requirements ;
 - surface protection ;
 - packaging ;
 - inspection prior to delivery ;
- i) for products intended to be anodised by the customer, the order shall also contain the following information :
- the intended particular surface treatment (according to the relevant European Standard).

5 Requirements

5.1 Production and manufacturing processes

Unless otherwise specified in the order, the production and manufacturing processes shall be left to the discretion of the producer. Unless it is explicitly stated on the order, no obligation shall be placed on the producer to use the same processes for subsequent similar orders.