



SLOVENSKI STANDARD

SIST EN 754-1:2016

01-julij-2016

Nadomešča:
SIST EN 754-1:2008

Aluminij in aluminijeve zlitine - Hladno vlečene palice/drogovi in cevi - 1. del: Tehnični pogoji za pregled in dobavo

Aluminium and aluminium alloys - Cold drawn rod/bar and tube - Part 1: Technical conditions for inspection and delivery

Aluminium und Aluminiumlegierungen - Gezogene Stangen und Rohre - Teil 1:
Technische Lieferbedingungen

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

Ta slovenski standard je istoveten z: EN 754-1:2016

ICS:

77.150.10 Aluminijski izdelki Aluminium products

SIST EN 754-1:2016 en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 754-1

March 2016

ICS 77.150.10

Supersedes EN 754-1:2008

English Version

**Aluminium and aluminium alloys - Cold drawn rod/bar
and tube - Part 1: Technical conditions for inspection and
delivery**

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

Aluminium und Aluminiumlegierungen - Gezogene
Stangen und Rohre - Teil 1: Technische
Lieferbedingungen

This European Standard was approved by CEN on 10 January 2016.

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.

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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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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European foreword

This document (EN 754-1:2016) 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 September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 754-1:2008.

Within its programme of work, Technical committee CEN/TC 132 entrusted CEN/TC 132/WG 5 "Extruded and drawn products" to revise EN 754-1:2008.

The following technical modifications have been introduced during the revision:

- In the Normative references clause, EN 10002-1 was replaced by EN ISO 6892-1.

EN 754, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube* comprises the following parts:

- *Part 1: Technical conditions for inspection and delivery*
- *Part 2: Mechanical properties* [SIST EN 754-1:2016](https://standards.iteh.ai/catalog/standards/sist/c3f6b00b-e882-4132-803c-6e14ed00cac5/sist-en-754-1-2016)
- *Part 3: Round bars, tolerances on dimensions and form*
- *Part 4: Square bars, tolerances on dimensions and form*
- *Part 5: Rectangular bars, tolerances on dimensions and form*
- *Part 6: Hexagonal bars, tolerances on dimensions and form*
- *Part 7: Seamless tubes, tolerances on dimensions and form*
- *Part 8: Porthole tubes, tolerances on dimensions and form*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 754-1:2016 (E)**1 Scope**

This European Standard specifies the technical conditions for inspection and delivery of aluminium and aluminium alloy cold drawn rod/bar and tube for general engineering applications.

This document applies to products which are extruded and then cold drawn.

This document does not apply to:

- forging stock (EN 603),
- products delivered in coils (EN 13958),
- coiled tubes cut to length (EN 13958).

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 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 and form of products*

EN 754-2, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 2: Mechanical properties*

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EN 754-3, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 3: Round bars, tolerances on dimensions and form*

EN 754-4, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 4: Square bars, tolerances on dimensions and form*

EN 754-5, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 5: Rectangular bars, tolerances on dimensions and form*

EN 754-6, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 6: Hexagonal bars, tolerances on dimensions and form*

EN 754-7, *Aluminium and aluminium alloys - Cold drawn rod/bar and tube - Part 7: Seamless tubes, tolerances on dimensions and form*

EN 754-8, *Aluminium and aluminium alloys — Cold drawn rod/bar and tube — Part 8: Porthole tubes, tolerances on dimensions and form*

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 12258-1:2012, *Aluminium and aluminium alloys — Terms and definitions — Part 1: General terms*

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

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

EN ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method (ISO 6506-1)*

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

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12258-1:2012 and the following apply.

3.1

order document

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

[SOURCE: EN 13957:2008, 3.1]

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4 Ordering information

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The order document shall contain the following:

- a) form and type of product:
 - 1) form of the product (cold drawn rod/bar or tube). If tube, whether seamless or porthole/bridge;
 - 2) reference to EN 573-3 for chemical composition limits;
 - 3) reference to EN 515 for temper designation;
 - 4) purchaser application, in particular whether subsequent anodising is intended. This shall be clearly stated on the order document;
- b) reference to EN 754-2 for mechanical property limits;
- c) a reference to this document (EN 754-1);
- d) dimensions and shape of the product:
 - 1) round tube:
 - i) length;
 and only two of the following dimensions:

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- ii) outside diameter;
 - iii) inside diameter;
 - iv) the tolerances for outside or inside diameter shall state as to whether the proposed tolerances are mean or inclusive of ovality (i.e. the maximum allowable deviation at any point from the specified diameter. If this is not made clear on the order, then the supplier shall assume that the specified tolerances for either or both outside and inside diameters are inclusive of ovality. However, if the purchaser specifically requires that the outside and/or inside diameter tolerances must be both mean and inclusive of ovality then this shall be clearly stated on the order;
 - v) wall thickness;
- 2) round bar:
- i) diameter;
 - ii) length;
- 3) square and hexagonal bar:
- i) width across flats;
 - ii) length;
- 4) rectangular bar:
- i) width;
 - ii) thickness;
 - iii) length;
- 5) all other cases:
- i) drawing of cross section;
 - ii) length;
- e) tolerances on dimensions and form, with reference to the appropriate European Standard and/or a drawing;
- f) quantity:
- 1) mass;
 - 2) number of pieces;
 - 3) total length;
 - 4) tolerance on quantity;
- g) any requirements for inspection documents;
- h) any special requirements agreed between supplier and purchaser:

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- 1) marking of products;
 - 2) reference to drawings, part numbers, etc.;
 - 3) additional or special testing, e.g. stress corrosion testing;
 - 4) surface finish requirements;
 - 5) surface protection;
 - 6) packaging;
 - 7) inspection prior to delivery;
 - 8) use of $A_{50\text{mm}}$ value instead of A value for elongation;
- i) for products intended to be anodised by the purchaser, the order document shall also contain the information about the intended particular surface treatment with reference to the relevant European Standard.

5 Requirements

5.1 Production and manufacturing processes

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

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5.2 Quality control

The supplier shall be responsible for the performance of all inspection and tests required by the relevant European Standard and/or the particular specification prior to shipment of the product. If the purchaser wishes to inspect the product at the manufacturer's works, he shall notify the supplier at the time of placing the order.

5.3 Chemical composition limits

The chemical composition limits shall be in conformity with the requirements specified in EN 573-3.

If the purchaser requires closer limits for elements than those specified in the above standard, these limits shall be according to an agreement between supplier and purchaser and stated in the order document.

5.4 Mechanical properties

The mechanical properties shall be in conformity with those specified in EN 754-2 or those agreed between supplier and purchaser and stated in the order document.

Typical Brinell hardness values are given in EN 754-2, but they are not binding for acceptance purposes. However, a Brinell hardness value may be agreed upon for acceptance testing.

5.5 Freedom from surface defects

The surface shall be free from defects prejudicial to its suitable and proper use.