



SLOVENSKI STANDARD
SIST EN 1301-1:1998

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Aluminium and aluminium alloys - Drawn wire - Part 1: Technical conditions for inspection and delivery

Aluminium und Aluminiumlegierungen - Gezogene Drähte - Teil 1: Technische Lieferbedingungen

Aluminium et alliages d'aluminium - Fil étiré - Partie 1: Conditions techniques de contrôle et de livraison

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77.150.10 Alumijski izdelki Aluminium products

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EUROPEAN STANDARD

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English version

**Aluminium and aluminium alloys - Drawn wire -
Part 1: Technical conditions for inspection and
delivery**

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- Partie 1: Conditions techniques de contrôle
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Aluminium und Aluminiumlegierungen - Gezogene
Drähte - Teil 1: Technische Lieferbedingungen

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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.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

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

Contents

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Definitions	4
3.1 wire.....	4
3.2 cast.....	5
3.3 manufacturing batch.....	5
3.4 inspection lot.....	5
3.5 heat-treatment batch or lot.....	5
3.6 sample.....	5
3.7 specimen.....	5
3.8 test piece.....	6
3.9 test.....	6
4 Orders or tenders	6
5 Requirements.....	7
5.1 Production and manufacturing processes	7
5.2 Quality control	7
5.3 Chemical composition	7
5.4 Mechanical properties	7
5.5 Freedom from defects	7
5.6 Tolerances on dimensions	7
5.7 Other properties	7
6 Test procedure	8
6.1 Sampling	8
6.2 Methods of tests	9
6.3 Retests	10
7 Inspection documents.....	11
7.1 General	11
7.2 Documents established on the basis of inspections and tests performed by qualified personnel who are involved in the manufacturing process and/or belong to the quality control department.....	11
7.3 Documents established on the basis of inspections and tests performed or supervised by qualified personnel organisationally independent from the manufacturing department, according to the requirements specified on the order and carried out on the products for delivery or on the relevant inspection lot	11
8 Marking.....	12
9 Packing.....	12
10 Arbitration	12
Annexe A (informative) Bibliography	13

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 January 1998, and conflicting national standards shall be withdrawn at the latest by January 1998.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 4 "Wires and drawing stock" to prepare the following standard :

EN 1301-1 Aluminium and aluminium alloys - Drawn wire - Part 1 : Technical conditions for inspection and delivery

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

EN 1301-2 Aluminium and aluminium alloys - Drawn wire - Part 2 : Mechanical properties

EN 1301-3 Aluminium and aluminium alloys - Drawn wire - Part 3 : Tolerances on dimensions

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

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1 Scope

This part of EN 1301 specifies the technical conditions for inspection and delivery of aluminium and aluminium alloy drawn wire for general engineering applications including rivet manufacture (except aeronautical rivets).

It applies to drawn wire except for electrical or welding purposes.

It does not apply to drawing stock.

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 1301-2	Aluminium and aluminium alloys - Drawn wire - Part 2 : Mechanical properties SIST EN 1301-1:1998
EN 1301-3	Aluminium and aluminium alloys - Drawn wire - Part 3 : Tolerances on dimensions https://standards.iteh.ai/catalog/standards/sist/3fd1441fb-c94b-40af-81e7-81f642ef60ac/sist-en-1301-1-1998
EN 10002-1	Metallic materials - Tensile testing - Part 1 : Method of test (at ambient temperature)
EN 10204	Metallic products - Types of inspection documents

NOTE : Informative references to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in a bibliography, see annex A.

3 Definitions

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

3.1 wire

A solid wrought product of uniform cross-section along its whole length, generally supplied in coiled form.

The cross-section can be in the shape of circles, ovals, squares, rectangles, equilateral triangles or regular polygons. Products with a square, rectangular, triangular, or polygonal cross-section may have corners rounded along their whole length.

NOTE : For rectangular wires :

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

3.2 cast

Quantity of liquid metal in the furnace that has simultaneously undergone the same treatment before continuously casting and rolling or casting into wirebar or extrusion ingot.

3.3 manufacturing batch

Quantity of final product produced from the same cast, during the same manufacturing run and treatment charge with the same temper and diameter.

NOTE 1 : By agreement between producer and purchaser, it is permitted to aggregate two or more casts to form a manufacturing batch.

NOTE 2 : One manufacturing batch may contain more than one inspection lot.

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3.4 inspection lot

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

NOTE : More than one manufacturing batch may included in an inspection lot.

3.5 heat-treatment batch or lot

A quantity of products of the same grade or alloy, form, dimensions or cross-section and which is 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.

NOTE : More than one heat-treatment lot may be included in a furnace load.

3.6 sample

One or more products taken from an inspection lot.

3.7 specimen

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

3.8 test piece

A piece taken from each specimen and suitably prepared for the test.

3.9 test

An 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 (round wire, rectangular wire, etc.) ;
- the designation of the aluminium or aluminium alloy (in accordance with EN 573-3);

b) the temper of the material for delivery (degree of hardness or heat-treatment condition), and, if different, the temper of use (in accordance with EN 515) ;

c) the number of this European Standard or a specification number or, otherwise, the properties agreed between supplier and purchaser.

d) the dimensions and shape of the product :

- diameter ;
- thickness and width for rectangular wires ;
- reference to a drawing if necessary ;

e) tolerances on the dimensions, in accordance with EN 1301-3 ;

f) quantity :

- mass or length ;
- tolerances on quantity if required ;

g) any requirements for certificates of conformity, test and/or analysis reports or inspection certificates ;

h) any special requirements agreed between the supplier and the purchaser :

- testing procedure ;
- marking of products ;
- surface quality ;

- type of conditioning, packaging etc.

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 in the order, no obligation shall be placed on the producer to use the same processes for subsequent and similar orders.

5.2 Quality control

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

5.3 Chemical composition

The chemical composition shall conform to EN 573-3.

If the purchaser requires content limits for elements not specified in the above standard, these limits shall be stated on the order, after agreement between the supplier and the purchaser.

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5.4 Mechanical properties

The mechanical properties shall conform to EN 1301-2 or to those agreed upon between supplier and purchaser and stated on the order.

5.5 Freedom from defects

The products shall be free from defects prejudicial to its suitable and proper use. Whilst an operation designed to mask a fault is not permitted, the elimination of a superficial imperfection is permissible, provided that the tolerances on dimensions and the material properties continue to meet specifications.

5.6 Tolerances on dimensions

The tolerances on dimensions shall conform to EN 1301-3.

5.7 Other properties

Additional property requirements, such as bending, torsion, wrapping and heading ability and shearing strength, etc., shall be agreed by the supplier and the purchaser, and stated on the order.