



SLOVENSKI STANDARD SIST EN 1715-1:2008

01-julij-2008

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SIST EN 1715-1:1998

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Aluminium and aluminium alloys - Drawing stock - Part 1: General requirements and technical conditions for inspection and delivery

Aluminium und Aluminiumlegierungen - Vordraht - Teil 1: Allgemeine Anforderungen und Technische Lieferbedingungen
(standards.iteh.ai)

Aluminium et alliages d'aluminium - Fil machine - Partie 1: Exigences générales et conditions techniques de contrôle et de livraison
http://standards.iteh.ai/sist/2d497f16-19ee-4cb8-a16e-e9fc8835e477/sist-en-1715-1-2008

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English Version

Aluminium and aluminium alloys - Drawing stock - Part 1:
General requirements and technical conditions for inspection
and delivery

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Allgemeine Anforderungen und Technische
Lieferbedingungen

This European Standard was approved by CEN on 14 March 2008.

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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 Management Centre has the same status as the official versions.

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

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Contents

Page

Foreword.....	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Ordering information	6
5 Requirements	7
5.1 Production and manufacturing processes	7
5.2 Quality control.....	8
5.3 Aluminium and aluminium alloys used	8
5.4 Technical specifications	8
6 Product inspection and test methods	11
6.1 Analysis of chemical composition.....	11
6.2 Thermal treatment control	11
6.3 Mechanical properties.....	11
6.4 Surface appearance.....	12
6.5 Other tests	12
7 Delivery documents and inspection documents	12
7.1 Certificate of mass and analysis.....	12
7.2 Inspection certificate	12
8 Marking	12
9 Packaging, transport and storage.....	13
9.1 Packaging	13
9.2 Transport and storage.....	13
10 Complaints of non conformity.....	13
Annex A (normative) Rules for rounding.....	14

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SIST EN 1715-1:2008

<https://standards.iteh.ai/catalog/standards/sist/2d497116-19ce-4cb8-a10c-9f68835e477/sist-en-1715-1-2008>

Foreword

This document (EN 1715-1:2008) 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 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

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 1715-1:1997.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 4 "Wires and drawing stock" to revise EN 1715-1:1997.

Besides editorial adjustments in the text and update of normative references, the following changes have been made:

- Scope: maximum unit mass increased from 3 t to 4 t. Addition of metal spraying and food packaging applications. Addition of hot extruded rod (HER).
- Clause 2: addition of EN 12258-1, EN 14242, EN 14726, EN ISO 18273
- Clause 4: amended [SIST EN 1715-1:2008](https://standards.iteh.ai/catalog/standards/sist/2d497f16-19ee-4cb8-a16e-e9fc8835e477/sist-en-1715-1-2008)
- Clause 5: amended <https://standards.iteh.ai/catalog/standards/sist/2d497f16-19ee-4cb8-a16e-e9fc8835e477/sist-en-1715-1-2008>
- Table 1: deleted
- Table 2: becomes Table 1
- Clause 6: amended
- Clause 7: in 7.2 deletion of 7.2.1 to 7.2.2.3
- Clause 10: title amended

EN 1715 comprises the following parts under the general title "*Aluminium and aluminium alloys – Drawing stock*":

- *Part 1: General requirements and technical conditions for inspection and delivery*
- *Part 2: Specific requirements for electrical applications*
- *Part 3: Specific requirements for mechanical uses (excluding welding)*
- *Part 4: Specific requirements for welding applications*

— *Part 5: Specific requirements for aluminium food packaging*¹⁾

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.

CEN/TC 132 affirms that it is its policy that in the case when a patentee refuses to grant licenses on standardised standard products under reasonable and not discriminatory conditions, then this product is removed from the corresponding standard.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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¹⁾ Under preparation.

1 Scope

This European Standard specifies general requirements for drawing stock of aluminium and aluminium alloys delivered in the form of coils with a unit mass ranging between 1 t and 4 t and obtained by common industrial processes.

It also specifies the technical conditions for inspection and delivery of these products.

It applies to drawing stock intended for the following main fields of application:

- wires for general electrical purposes;
- wires for general mechanical uses;
- wires for brazing and welding and metal spraying;
- food packaging.

The specific requirements to drawing stock for these applications are specified in EN 1715-2, EN 1715-3 and EN 1715-4.

It does not apply to wires which are drawn, but only to drawing stock which is produced by hot-working.

NOTE Three main methods exist for the manufacture of drawing stock:

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- a) continuously cast rod (CCR):
- a section is cast continuously in the groove of a wheel, the groove being closed by an endless strip;
 - the solid and still hot section is rolled in a multistand rolling mill to the required diameter;
 - the drawing stock rod thus produced is wound continuously to form coils up to 4 t in mass;
- b) hot rolled rod (HRR):
- a wirebar of diameter approximately 100 mm to 150 mm is heated and rolled to the required diameter;
 - the coils, weighing up to approximately 100 kg are butt welded together and wound to form coils with mass of 1 t to 4 t;
- c) hot extruded rod (HER):
- coils up to 100 kg can be produced in a single fibre without butt welds (depending on the size of the extrusion press);
 - coils over 100 kg are normally produced by block on block extrusion, generating "Zweiwachs"-joints. For mechanical applications (i.e fasteners) the "Zweiwachs" area should be marked.

2 Normative references

The following referenced documents are indispensable for the application 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 515, *Aluminium and aluminium alloys — Wrought products — Temper designations*

EN 1715-1:2008 (E)

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

EN 1715-2, *Aluminium and aluminium alloys — Drawing stock — Part 2: Specific requirements for electrical applications*

EN 1715-3, *Aluminium and aluminium alloys — Drawing stock — Part 3: Specific requirements for mechanical uses (excluding welding)*

EN 1715-4, *Aluminium and aluminium alloys — Drawing stock — Part 4: Specific requirements for welding applications*

EN 10002-1, *Metallic materials — Tensile testing — Part 1: Method of test at ambient temperature*

EN 10204, *Metallic products — Types of inspection documents*

EN 12258-1:1998, *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 14726, *Aluminium and aluminium alloys — Chemical analysis — Guideline for spark optical emission spectrometric analysis*

EN ISO 18273, *Welding consumables — Wire electrodes, wires and rods for welding of aluminium and aluminium alloys — Classification (ISO 18273:2004)*

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3 Terms and definitions

SIST EN 1715-1:2008

For the purposes of this document, the terms and definitions given in EN 12258-1:1998 and the following apply.

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3.1 drawing stock

intermediate wrought solid product manufactured by hot working with cross-section approximately circular along its entire length, delivered in coils and in a single length, and with a unit mass normally ranging between 1 t and 4 t

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

3.4 delivery batch

quantity of final product produced from the same cast, temper, diameter, and forming part of the same shipment

4 Ordering information

The order shall define the product in detail and shall contain the following information:

- a) the type of product:
- product identification: drawing stock;
 - designation of the aluminium grade or aluminium alloy in accordance with EN 573-3;
 - unit mass of the coil;
- b) the dimensions expressed in millimetres:
- nominal diameter of the drawing stock;
 - dimensions of coils;
- c) the temper of the product for delivery and, if different, the temper for use in accordance with EN 515;
- d) reference to the relevant parts of this European Standard;
- e) quantity:
- mass (in metric tons);
 - tolerances on quantity (if required);
- f) any special requirement agreed between supplier and purchaser, for example:
- properties other than those specified in EN 1715-2, EN 1715-3 or EN 1715-4;
 - loose or tight winding;
 - surface protection;
 - special packaging;
 - special marking;
 - any requirement for certificates of conformity, test and/or analysis reports or inspection certificates.

EXAMPLE

Drawing stock in EN AW-6101, diameter 9,5 mm, T4 temper, unit mass 2 000 kg, coils with inner diameter 540 mm, height 850 mm, 50 t according to EN 1715-1 and EN 1715-2.

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 manufacturer.

The manufacturing process according to Clause 1 shall be mentioned in the delivery document.

In the case of special requirements it is recommended that trial quantities be produced to confirm that requirements are met.