

SLOVENSKI STANDARD
SIST EN 1715-3:2008**01-julij-2008****BUXca Yý U****SIST EN 1715-3:2002****SIST EN 1715-3:2002/AC:2002**

5`i a]b]^[b`Ui a]b]Yj Y`n`]h]bY!`J`Y Yb]`dc`]nXY_]!" "XY. `DcgYVbY`nU hYj Y`nU
i dcfUVc`j`g]fc`bY`bUa YbY`ffUhYb`j Uf`Yb`UL

Aluminium and aluminium alloys - Drawing stock - Part 3: Specific requirements for
mechanical uses (excluding welding)

iTeh STANDARD PREVIEW

Aluminium und Aluminiumlegierungen - Vordraht - Teil 3: Besondere Anforderungen für
mechanische Anwendungen (ausgenommen Schweißen)

[SIST EN 1715-3:2008](http://standards.itih.ai/en/doc/standards/sist-en-1715-3-2008-4641-9af5-6a2749a61a0f/sist-en-1715-3-2008)

Aluminium et alliages d'aluminium - Fil machine - Partie 3: Exigences spécifiques pour
les applications mécaniques (soudage excepté)

Ta slovenski standard je istoveten z: EN 1715-3:2008

ICS:

77.150.10 Aluminijski izdelki Aluminium products

SIST EN 1715-3:2008**en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 1715-3:2008

<https://standards.iteh.ai/catalog/standards/sist/2a016b77-3c08-46f4-9af5-6a2749a61a0f/sist-en-1715-3-2008>

English Version

Aluminium and aluminium alloys - Drawing stock - Part 3: Specific requirements for mechanical uses (excluding welding)

Aluminium et alliages d'aluminium - Fil machine - Partie 3:
Exigences spécifiques relatives aux applications
mécaniques (soudage excepté)

Aluminium und Aluminiumlegierungen - Vordraht - Teil 3:
Besondere Anforderungen für mechanische Anwendungen
(ausgenommen Schweißen)

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

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 Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.

[SIST EN 1715-3:2008](https://standards.iteh.ai/catalog/standards/sist/2a016b77-3c08-46f4-9af5-6a2749a61a0f/sist-en-1715-3-2008)

<https://standards.iteh.ai/catalog/standards/sist/2a016b77-3c08-46f4-9af5-6a2749a61a0f/sist-en-1715-3-2008>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Requirements	4
3.1 Chemical composition	4
3.2 Temper for delivery.....	6
4 Product inspection and testing methods.....	6
4.1 Chemical composition	6
4.2 Mechanical properties	6
5 Delivery documents and inspection documents.....	6
6 Marking and packaging.....	7

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 1715-3:2008](https://standards.iteh.ai/catalog/standards/sist/2a016b77-3c08-46f4-9af5-6a2749a61a0f/sist-en-1715-3-2008)

<https://standards.iteh.ai/catalog/standards/sist/2a016b77-3c08-46f4-9af5-6a2749a61a0f/sist-en-1715-3-2008>

Foreword

This document (EN 1715-3:2008) 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.

This document supersedes EN 1715-3:1997.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 4 "Wires and drawing stock" to revise EN 1715-3:1997.

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

- Clause 3: amended; Table 1: values modified, alloy EN AW-5086 deleted, alloy EN AW-6056 added, new tempers for alloys EN AW-6060, EN AW-6061 and EN AW-6082 added

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 packaging¹⁾*

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.

1) Under preparation.

1 Scope

This European Standard specifies specific requirements for drawing stock of aluminium and aluminium alloys for general mechanical uses (excluding welding).

The general requirements and technical conditions for inspection and delivery are specified in EN 1715-1.

This European Standard does not apply to drawn wire.

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

EN 1715-1, *Aluminium and aluminium alloys — Drawing stock — Part 1: General requirements and technical conditions for inspection and delivery*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3 Requirements

3.1 Chemical composition

[SIST EN 1715-3:2008](#)

<https://standards.iteh.ai/catalog/standards/sist/2a016b77-3c08-46f4-9af5-001901a00000/en-1715-3-2008>

Aluminium and aluminium alloys used commonly for mechanical uses (excluding welding) are given in Table 1.

Their chemical composition shall be in accordance with EN 573-3.

The elements determined and reported in the certificate of mass and analysis shall be :

Si, Fe, Cu, Mn, Mg, Cr, Ni, Zn, Ti, Ga and V.

If other elements (e.g. Pb, Bi, Zr...) are specified in EN 573-3, they shall be determined and reported in the certificate of mass and analysis.

Table 1 — Main alloys for mechanical purposes - Tempers for delivery – Typical tensile strength values

Alloy designation	Temper	Tensile strength typical range R_m MPa	
		Continuously cast rod	Hot rolled and extruded rod
1 000 Serie			
EN AW-1098 [Al 99,98]	F	75 to 85	75 to 85
EN AW-1080A [Al 99,8(A)]	F	80 to 110	80 to 110
	O	60 to 75	60 to 75
EN AW-1070A [Al 99,7]	F	80 to 110	80 to 110
	O	60 to 75	60 to 75
EN AW-1050A [Al 99,5]	F	80 to 130	80 to 130
	O	60 to 80	60 to 80
2 000 Serie			
EN AW-2011 [Al Cu6BiPb]	F	170 to 230	170 to 400
	O3	110 to 170	110 to 170
EN AW-2014A [Al Cu4 SiMg(A)]	F	200 to 260	200 to 400
	O/O3	150 to 220	150 to 220
EN AW-2017A [Al Cu4 MgSi(A)]	F	200 to 260	200 to 400
	O/O3	150 to 220	150 to 220
EN AW-2117 [Al Cu2,5Mg]	F	170 to 230	170 to 360
	O/O3	140 to 200	140 to 200
EN AW-2024 [Al Cu4Mg1]	F	200 to 280	200 to 440
	O/O3	180 to 240	180 to 240
3 000 Serie			
EN AW-3003 [Al Mn1Cu]	F	120 to 220	120 to 220
	O3	95 to 120	95 to 120
EN AW-3103 [Al Mn1]	F	120 to 220	120 to 220
	O3	95 to 115	95 to 115
5 000 Serie			
EN AW-5051A [Al Mg2(B)]	F	170 to 230	
EN AW-5251 [Al Mg2Mn0,3]	F	170 to 230	
EN AW-5052 [Al Mg2,5]	F	180 to 260	
EN AW-5154A [Al Mg3,5(A)]	F	210 to 280	
	O3	210 to 250	
EN AW-5754 [Al Mg3]	F	200 to 260	
	O3	200 to 250	
EN AW-5019 [Al Mg5]	F	250 to 320	
	O/O3	250 to 310	
6 000 Serie			
EN AW-6056 [Al Si1MgCuMn]	F	160 to 230	
	O3	140 to 180	
	T4	300 to 380	
EN AW-6060 [Al MgSi]	F	120 to 190	
	T4	155 to 210	
EN AW-6061 [Al Mg1SiCu]	F	120 to 200	
	O3	90 to 140	
	T4	220 to 280	
EN AW-6063 [Al Mg0,7Si]	T4	160 to 220	
EN AW-6082 [Al Si1MgMn]	F	130 to 220	
	O3	100 to 150	
	T4	230 to 290	
7 000 Serie			
EN AW-7075 [Al Zn5,5MgCu]	O/O3	180 to 290	

3.2 Temper for delivery

The variety of application of drawn wire made from drawing stock of aluminium and aluminium alloys used for mechanical applications requires a precise definition of the temper for delivery which is liable to exert a significant influence on the ability to process and on the final characteristics. Tempers shall be indicated in accordance with EN 515.

The usual tempers for drawing stock covered by this European Standard are:

- F: as fabricated;
- O: annealed;
- O3: homogenised;
- T4: solution heat treated and naturally aged.

These tempers are listed in Table 1 with typical ranges of mechanical characteristics (tensile strength).

If no temper is specified when ordering, the delivered temper shall be F.

Other tempers shall be agreed between manufacturer and purchaser.

4 Product inspection and testing methods

4.1 Chemical composition

The chemical composition shall be checked for each cast delivered in accordance with EN 1715-1.

4.2 Mechanical properties

The mechanical properties shall be at least measured once per coil in accordance with EN 1715-1.

Other sampling frequencies shall be agreed between manufacturer and purchaser.

5 Delivery documents and inspection documents

A certificate of mass and analysis shall be provided in accordance with EN 1715-1.

In addition, a test report in accordance with EN 1715-1 shall be delivered for each cast in a consignment with reference to the order, and giving the following information:

- identification of the alloy;
- temper;
- diameter;
- list of coil identification numbers;
- results of test for mechanical properties;
- date of manufacture;