BRITISH STANDARD

BS EN
573-4:2004

Aluminium and aluminium alloys — Chemical composition and form of wrought products —

Part 4: Forms of products

The European Standard EN 573-4:2004 has the status of a British Standard

ICS 77.150.10; 77.120.10

BSI
British Standards

National foreword

This British Standard is the official English language version of EN 573-4:2004. It supersedes BS EN 573-4:1995 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee NFE/35, Light metals and their alloys, to Subcommittee NFE/35/5, Wrought aluminium and aluminium alloys, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled "International Standards Correspondence Index", or by using the "Search" facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

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EUROPEAN STANDARD

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English version

Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 4: Forms of products

Aluminium et alliages d'aluminium - Composition chimique et forme des produits corroyés - Partie 4: Formes des produits

Aluminium und Aluminiumlegierungen - Chemische Zusammensetzung und Form von Halbzeug - Teil 4: Erzeugnisformen

This European Standard was approved by CEN on 4 December 2003.

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.

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 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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

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Contents

Foreword

This document (EN 573-4:2004) 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 July 2004, and conflicting national standards shall be withdrawn at the latest by July 2004.

Within its programme of work, Technical Committee CEN/TC 132 has been entrusted to prepare the following standard :

EN 573-4, *Aluminium and aluminium alloys - Chemical composition and form of wrought products - Part 4 : Forms of products.*

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

EN 573-1, *Aluminium and aluminium alloys - Chemical composition and form of wrought products – Part 1 : Numerical designation system.*

EN 573-2, *Aluminium and aluminium alloys - Chemical composition and form of wrought products – Part 2 : Chemical symbol based designation system.*

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

EN 573-5, *Aluminium and aluminium alloys - Chemical composition and form of wrought products – Part 5 : Codification of standardized wrought products.*

This document supersedes EN 573-4:1994.

CEN/TC 132 has decided to revise this standard every two years if necessary.

The following technical changes have been introduced during the revision :

—	clause 1 :	note modified ;
—	Tables 1 to 8 :	columns « Rolling ingots » and « Extrusion ingots » deleted ; column « Extruded and drawn products » split up ;
—	Table 3 :	alloys EN AW-3105B and EN AW-3005A added ;
—	Table 4 :	alloy EN AW-4014 deleted ; alloys EN AW-4016, EN AW-4017 and EN AW-4018 added ;
—	Table 5 :	alloys EN AW-5119A, EN AW-5449, EN AW 5654A, EN AW-5356A, EN AW-5456B EN AW-5556B, EN AW-5183A, EN AW-5383, EN AW-5186 and EN AW-5187 added ;
—	Table 6 :	alloys EN AW-6008 and EN AW-6016 added ;
—	Table 8 :	alloys EN AW-8021B and EN AW-8015 added ;
—	Annexes A and B :	added.

Annex A is normative. Annex B is informative.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard gives the forms of products which are currently available for wrought aluminium and aluminium alloys, for each major field of application.

It applies to aluminium and aluminium alloys with the chemical compositions specified in EN 573-3.

NOTE Some of the products listed in the present standard can be subject to patent or patent applications, and their listing herein does not in any way imply the granting of a licence under such patent right.

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

It uses the four-figure numerical and the alternative chemical symbol based alloy designation systems specified respectively in EN 573-1 and EN 573-2.

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 (including amendments).

EN 573-2, *Aluminium and aluminium alloys - Chemical composition and form of wrought products – Part 2 : Chemical symbol based designation system.*

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

EN 602, *Aluminium and aluminium alloys - Wrought products - Chemical composition of semi products used for the fabrication of articles for use in contact with food.*

3 Classification

For the purposes of this part of this European Standard, aluminium and aluminium alloys are classified into two classes, A and B, as follows.

Class A : Aluminium and aluminium alloys for the relevant field of application, for which the mechanical properties are specified in the corresponding European Standard (see annex B) ;

Class B : Aluminium and aluminium alloys produced in limited volume for the relevant field of application, and/or Aluminium and aluminium alloys used for special applications not covered by a European Standard. The mechanical properties of these alloys are not specified in the corresponding European Standard when one exists.

NOTE 1 Tolerances on dimensions and form, as specified in the relevant European Standards, apply to both "Class A" and "Class B" aluminium and aluminium alloys.

NOTE 2 Aluminium and aluminium alloys for aerospace applications, which are standardized by AECMA but stand outside the field of general engineering, are in "Class B". Their mechanical properties and tolerances on form and dimensions are specified in the relevant European Aerospace Standards.

4 Forms of products

Tables 1 to 8 give, for each major field of application, the availability of each alloy as defined by their classification as a "Class A" or a "Class B" alloy.

The last column indicates whether the alloy is in conformity [Y or N (Yes or No)] with EN 602, which specifies the requirements for the chemical composition of wrought aluminium and aluminium alloys used for the production of materials and articles intended to be in contact with food.

The informative annex B indicates which European Standards specify mechanical properties for the product groups according to Tables 1 to 8.

Table 1 — Applications and forms of products – 1000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet, strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-1199	EN AW-Al 99,99	-	-	-	-	-	-	B	-	B	-	-	-	Y
EN AW-1098	EN AW-Al 99,98	-	-	B	A	-	-	-	-	B	-	A	-	Y
EN AW-1198	EN AW-Al 99,98(A)	-	-	-	-	-	-	B	-	B	-	-	-	Y
EN AW-1090	EN AW-Al 99,90	-	-	-	B	-	-	-	-	-	-	-	-	Y
EN AW-1085	EN AW-Al 99,85	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-1080A	EN AW-Al 99,8(A)	-	-	A	A	B	B	-	-	A	-	A	-	Y
EN AW-1070A	EN AW-Al 99,7	-	-	-	A	B	A	-	-	A	-	A	-	Y
EN AW-1370	EN AW-EAl 99,7	-	A	-	-	–	-	-	-	-	-	-	-	Y
EN AW-1060	EN AW-Al 99,6	-	-	-	-	B	B	B	-	B	-	-	-	Y
EN AW-1050A	EN AW-Al 99,5	B	-	A	A	A	A	A	A	A	B	A	-	Y
EN AW-1350	EN AW-EAl 99,5	-	A	-	-	B	A	-	-	-	-	-	-	Y
EN AW-1350A	EN AW-EAl 99,5(A)	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-1450	EN AW-Al 99,5 Ti	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-1235	EN AW-Al 99,35	-	-	-	-	-	-	B	-	-	-	-	-	Y
EN AW-1200	EN AW-Al 99,0	-	-	-	B	A	A	A	A	A	-	A	-	Y
EN AW-1200A	EN AW-Al 99,0(A)	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-1100	EN AW-Al 99,0Cu	-	-	-	-	B	B	B	A	B	-	-	-	Y

Table 2 — Applications and forms of products – 2000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet, strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-2001	EN AW-Al Cu5,5MgMn	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-2007	EN AW-Al Cu4PbMgMn	-	-	-	-	A	A	-	-	-	-	-	-	N
EN AW-2011	EN AW-Al Cu6BiPb	B	-	-	A	A	A	-	-	-	-	A	-	N
EN AW-2011A	EN AW-Al Cu6BiPb(A)	-	-	-	-	A	A	-	-	-	-	-	-	N
EN AW-2014	EN AW-Al Cu4SiMg	A	-	-	-	A	A	-	-	A	-	-	-	N
EN AW-2014A	EN AW-Al Cu4SiMg(A)	B	-	-	A	A	A	-	-	A	-	-	-	N
EN AW-2214	EN AW-Al Cu4SiMg(B)	B	-	-	-	B	B	-	-	B	-	-	-	N
EN AW-2017A	EN AW-Al Cu4MgSi(A)	B	-	-	A	A	A	-	-	A	-	-	-	N
EN AW-2117	EN AW-Al Cu2,5Mg	-	-	-	A	-	-	-	-	B	-	-	-	N
EN AW-2618A	EN AW-Al Cu2Mg1,5Ni	B	-	-	-	B	B	-	-	B	-	-	-	N
EN AW-2219	EN AW-Al Cu6Mn	B	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-2319	EN AW-Al Cu6Mn(A)	-	-	B	-	-	-	-	-	-	-	-	-	N
EN AW-2024	EN AW-Al Cu4Mg1	A	-	-	A	A	A	-	-	A	-	-	-	N
EN AW-2124	EN AW-Al Cu4Mg1(A)	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-2030	EN AW-Al Cu4PbMg	-	-	-	B	A	A	-	-	-	-	-	-	N
EN AW-2031	EN AW-Al Cu2,5NiMg	B	-	-	-	-	-	-	-	-	-	-	-	N
EN AW-2091	EN AW-Al Cu2Li2Mg1,5	-	-	-	-	B	B	-	-	B	-	-	-	N

Table 3 — Applications and forms of products – 3000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-3002	EN AW-Al Mn0,2Mg0,1	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-3102	EN AW-Al Mn0,2	-	-	-	-	B	B	-	-	-	-	A	-	N
EN AW-3003	EN AW-Al Mn1Cu	-	-	-	A	A	A	A	A	A	A	-	B	Y
EN AW-3103	EN AW-Al Mn1	-	-	B	A	A	A	A	A	A	B	A	A	Y
EN AW-3103A	EN AW-Al Mn1(A)	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-3004	EN AW-Al Mn1Mg1	-	-	-	-	-	-	-	B	A	A	-	A	Y
EN AW-3104	EN AW-Al Mn1Mg1Cu	-	-	-	-	-	-	-	-	B	A	-	-	Y
EN AW-3005	EN AW-Al Mn1Mg0,5	-	-	-	-	-	-	A	-	A	A	-	A	Y
EN AW-3005A	EN AW-Al Mn1Mg0,5(A)	-	-	-	-	-	-	-	-	B	B	-	-	Y
EN AW-3105	EN AW-Al Mn0,5Mg0,5	-	-	-	-	-	-	B	B	A	-	-	B	N
EN AW-3105A	EN AW-Al Mn0,5Mg0,5(A)	-	-	-	-	-	-	-	-	B	A	-	-	Y
EN AW-3105B	EN AW-Al Mn0,6Mg0,5	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-3207	EN AW-Al Mn0,6	-	-	-	-	-	-	-	-	B	A	A	-	Y
EN AW-3207A	EN AW-Al Mn0,6(A)	-	-	-	-	-	-	-	-	B	B	-	-	Y
EN AW-3017	EN AW-Al Mn1Cu0,3	-	-	-	-	-	-	-	-	B	B	-	-	Y

Table 4 — Applications and forms of products – 4000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-4004	EN AW-Al Si10Mg1,5	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-4104	EN AW-Al Si10MgBi	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-4006	EN AW-Al Si1Fe	-	-	-	-	-	-	-	-	A	-	-	-	Y
EN AW-4007	EN AW-Al Si1,5Mn	-	-	-	-	-	-	-	-	A	-	-	-	Y
EN AW-4015	EN AW-Al Si2Mn	-	-	-	-	-	-	-	-	A	-	-	-	Y
EN AW-4016	EN AW-Al Si2MnZn	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-4017	EN AW-Al SiMnMgCu	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-4018	EN AW-Al Si7Mg	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-4032	EN AW-Al Si12,5MgCuNi	B	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-4043A	EN AW-Al Si5(A)	-	-	A	-	-	-	-	-	-	-	-	-	Y
EN AW-4343	EN AW-Al Si7,5	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-4045	EN AW-Al Si10	-	-	B	-	-	-	-	-	B	-	-	-	Y
EN AW-4046	EN AW-Al Si10Mg	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-4047A	EN AW-Al Si12(A)	-	-	A	-	-	-	-	-	B	-	-	-	Y

Table 5 — Applications and forms of products – 5000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-5005	EN AW-Al Mg1(B)	-	-	-	B	A	A	-	A	A	-	-	A	Y
EN AW-5005A	EN AW-Al Mg1(C)	-	-	-	-	A	A	-	-	A	-	A	-	Y
EN AW-5305	EN AW-Al 99,85Mg1	-	-	-	B	-	-	-	-	B	-	A	-	Y
EN AW-5505	EN AW-Al 99,9Mg1	-	-	-	B	-	-	-	-	B	-	A	-	Y
EN AW-5605	EN AW-Al 99,98Mg1	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-5010	EN AW-Al Mg0,5Mn	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-5110	EN AW-Al 99,85Mg0,5	-	-	-	B	-	-	-	-	B	-	A	-	Y
EN AW-5210	EN AW-Al 99,9Mg0,5	-	-	-	B	-	-	-	-	B	-	A	-	Y
EN AW-5310	EN AW-Al 99,98Mg0,5	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-5018	EN AW-Al Mg3Mn0,4	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5019	EN AW-Al Mg5	B	-	-	A	A	A	-	-	-	-	-	-	Y
EN AW-5119	EN AW-Al Mg5(A)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5119A	EN AW-Al Mg5(B)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5040	EN AW-Al Mg1,5Mn	-	-	-	-	-	-	-	-	A	-	-	A	Y
EN AW-5042	EN AW-Al Mg3,5Mn	-	-	-	-	-	-	-	-	-	A	-	-	Y
EN AW-5049	EN AW-Al Mg2Mn0,8	-	-	-	-	-	-	-	-	A	-	-	A	Y
EN AW-5149	EN AW-Al Mg2Mn0,8(A)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5249	EN AW-Al Mg2Mn0,8Zr	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5449	EN AW-Al Mg2Mn0,8(B)	-	-	-	-	-	-	-	-	A	-	-	A	N
EN AW-5050	EN AW-Al Mg1,5(C)	-	-	-	-	-	-	-	-	A	B	-	-	Y
EN AW-5050A	EN AW-Al Mg1,5(D)	-	-	-	-	-	-	-	-	B	B	-	-	Y
EN AW-5051A	EN AW-Al Mg2(B)	-	-	-	A	B	A	-	-	-	-	-	-	Y
EN AW-5251	EN AW-Al Mg2Mn0,3	-	-	-	A	A	A	-	-	A	B	-	A	Y
EN AW-5052	EN AW-Al Mg2,5	-	-	-	A	A	A	-	-	A	A	-	B	Y
EN AW-5252	EN AW-Al Mg2,5(B)	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-5352	EN AW-Al Mg2,5(A)	-	-	-	-	-	-	-	-	-	B	-	-	Y

Table 5 *(continued)*

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-5154A	EN AW-Al Mg3,5(A)	-	-	A	A	A	A	-	-	A	-	-	-	Y
EN AW-5154B	EN AW-Al Mg3,5Mn0,3	-	-	-	-	B	B	-	-	B	-	-	B	Y
EN AW-5354	EN AW-Al Mg2,5MnZr	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5454	EN AW-Al Mg3Mn	B	-	-	-	B	A	-	-	A	-	-	A	Y
EN AW-5554	EN AW-Al Mg3Mn(A)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5654	EN AW-Al Mg3,5Cr	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5654A	EN AW-Al Mg3,5Cr(A)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5754	EN AW-Al Mg3	A	-	A	A	A	A	-	B	A	-	A	A	Y
EN AW-5056A	EN AW-Al Mg5	See new designation EN AW-5019 [Al Mg5]												
EN AW-5356	EN AW-Al Mg5Cr(A)	-	-	A	-	-	-	-	-	-	-	-	-	Y
EN AW-5356A	EN AW-Al Mg5Cr(B)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5456A	EN AW-Al Mg5Mn1(A)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5456B	EN AW-Al Mg5Mn1(B)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5556A	EN AW-Al Mg5Mn	-	-	A	-	-	-	-	-	-	-	-	-	Y
EN AW-5556B	EN AW-Al Mg5Mn (A)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5657	EN AW-Al 99,85Mg1(A)	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-5058	EN AW-Al Mg5Pb1,5	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-5082	EN AW-Al Mg4,5	-	-	-	B	-	-	-	-	-	B	-	-	Y
EN AW-5182	EN AW-Al Mg4,5Mn0,4	-	-	-	-	-	-	-	-	A	A	-	-	Y
EN AW-5083	EN AW-Al Mg4,5Mn0,7	A	-	-	-	A	A	-	-	A	-	-	A	Y
EN AW-5183	EN AW-Al Mg4,5Mn0,7(A)	-	-	A	-	-	-	-	-	-	-	-	-	Y
EN AW-5183A	EN AW-Al Mg4,5Mn0,7(C)	-	-	B	-	-	-	-	-	-	-	-	-	Y
EN AW-5283A	EN AW-Al Mg4,5Mn0,7(B)	-	-	-	-	B	B	-	-	-	-	-	-	Y
EN AW-5383	EN AW-Al Mg4,5Mn0,9	-	-	-	-	B	B	-	-	A	-	-	-	N
EN AW-5086	EN AW-Al Mg4	-	-	-	A	A	A	-	-	A	-	-	A	Y
EN AW-5186	EN AW-Al Mg4Mn0,4	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-5087	EN AW-Al Mg4,5MnZr	-	-	A	-	-	-	-	-	-	-	-	-	Y
EN AW-5187	EN AW-Al Mg4,5MnZr (A)	-	-	B	-	-	-	-	-	-	-	-	-	Y

Table 6 – Applications and forms of products – 6000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-6101	EN AW-EAl MgSi	-	A	-	-	-	B	-	-	-	-	-	-	N
EN AW-6101A	EN AW-EAl MgSi(A)	-	-	-	-	B	A	-	-	-	-	-	-	Y
EN AW-6101B	EN AW-EAl MgSi(B)	-	-	-	-	B	A	-	-	-	-	-	-	Y
EN AW-6201	EN AW-EAl Mg0,7Si	-	A	-	-	-	-	-	-	-	-	-	-	N
EN AW-6401	EN AW-Al 99,9MgSi	-	-	-	B	-	-	-	-	-	-	-	-	Y
EN AW-6003	EN AW-Al Mg1Si0,8	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-6005	EN AW-Al SiMg	-	-	-	-	B	A	-	-	-	-	-	-	Y
EN AW-6005A	EN AW-Al SiMg(A)	B	-	-	-	B	A	-	-	-	-	-	-	Y
EN AW-6005B	EN AW-Al SiMg(B)	-	-	-	-	B	B	-	-	-	-	-	-	Y
EN AW-6106	EN AW-Al MgSiMn	-	-	-	-	B	A	-	-	-	-	-	-	Y
EN AW-6008	EN AW-Al SiMgV	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-6011	EN AW-Al Mg0,9Si0,9Cu	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-6012	EN AW-Al MgSiPb	-	-	-	B	A	A	-	-	-	-	-	-	N
EN AW-6013	EN AW-Al Mg1Si0,8CuMn	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-6015	EN AW-Al Mg1Si0,3Cu	-	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-6016	EN AW-Al Si1,2Mg0,4	-	-	-	-	-	-	-	-	A	-	-	-	Y
EN AW-6018	EN AW-Al Mg1SiPbMn	-	-	-	-	B	A	-	-	-	-	-	-	N
EN AW-6351	EN AW-Al Si1Mg0,5Mn	-	-	-	-	B	A	-	-	B	-	-	-	Y
EN AW-6351A	EN AW-Al Si1Mg0,5Mn(A)	-	-	-	-	B	B	-	-	-	-	-	-	Y
EN AW-6951	EN AW-Al MgSi0,3Cu	-	-	-	-	-	-	-	A	-	-	-	-	Y
EN AW-6056	EN AW-Al Si1MgCuMn	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-6060	EN AW-Al MgSi	B	-	-	A	A	A	-	A	-	-	A	-	Y
EN AW-6061	EN AW-Al Mg1SiCu	B	-	-	A	A	A	-	-	A	-	A	-	Y
EN AW-6061A	EN AW-Al Mg1SiCu(A)	-	-	-	-	B	B	-	-	-	-	-	-	Y
EN AW-6261	EN AW-Al Mg1SiCuMn	-	-	-	-	B	A	-	-	-	-	-	-	Y

Table 6 *(continued)*

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-6262	EN AW-Al Mg1SiPb	-	-	-	-	A	A	-	-	-	-	-	-	N
EN AW-6063	EN AW-Al Mg0,7Si	-	-	-	A	A	A	-	A	B	-	-	-	Y
EN AW-6063A	EN AW-Al Mg0,7Si(A)	-	-	-	-	A	A	-	-	-	-	-	-	Y
EN AW-6463	EN AW-Al Mg0,7Si(B)	-	-	-	-	B	A	-	-	-	-	-	-	Y
EN AW-6081	EN AW-Al Si0,9MgMn	-	-	-	-	B	A	-	-	B	-	-	-	Y
EN AW-6181	EN AW-Al Si1Mg0,8	B	-	-	-	-	-	-	-	B	-	-	-	Y
EN AW-6082	EN AW-Al Si1MgMn	A	-	-	A	A	A	-	-	A	-	A	B	Y
EN AW-6082A	EN AW-Al Si1MgMn(A)	-	-	-	-	B	B	-	-	-	-	-	-	Y

Table 7 – Applications and forms of products – 7000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-7003	EN AW-Al Zn6Mg0,8Zr	-	-	-	-	B	A	-	-	-	-	-	-	N
EN AW-7005	EN AW-Al Zn4,5Mg1,5Mn	-	-	-	-	B	A	-	-	-	-	-	-	N
EN AW-7108	EN AW-Al Zn5Mg1Zr	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7009	EN AW-Al Zn5,5MgCuAg	B	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7010	EN AW-Al Zn6MgCu	B	-	-	-	B	B	-	-	B	-	-	-	N
EN AW-7012	EN AW-Al Zn6Mg2Cu	B	-	-	-	B	B	-	-	B	-	-	B	N
EN AW-7015	EN AW-Al Zn5Mg1,5CuZr	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-7016	EN AW-Al Zn4,5Mg1Cu	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7116	EN AW-Al Zn4,5Mg1Cu0,8	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7020	EN AW-Al Zn4,5Mg1	B	-	-	B	A	A	-	-	A	-	-	-	N
EN AW-7021	EN AW-Al Zn5,5Mg1,5	-	-	-	-	-	-	-	-	A	-	-	-	N
EN AW-7022	EN AW-Al Zn5Mg3Cu	-	-	-	-	A	A	-	-	A	-	-	-	N
EN AW-7026	EN AW-Al Zn5Mg1,5Cu	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7029	EN AW-Al Zn4,5Mg1,5Cu	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7129	EN AW-Al Zn4,5Mg1,5Cu(A)	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7030	EN AW-Al Zn5,5Mg1Cu	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7039	EN AW-Al Zn4Mg3	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-7049A	EN AW-Al Zn8MgCu	-	-	-	-	A	A	-	-	B	-	-	-	N
EN AW-7149	EN AW-Al Zn8MgCu(A)	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7050	EN AW-Al Zn6CuMgZr	B	-	-	B	B	B	-	-	B	-	-	-	N
EN AW-7150	EN AW-Al Zn6CuMgZr(A)	-	-	-	-	B	B	-	-	B	-	-	-	N
EN AW-7060	EN AW-Al Zn7CuMg	-	-	-	-	B	B	-	-	-	-	-	-	N
EN AW-7072	EN AW-Al Zn1	-	-	-	-	-	-	-	B	B	-	-	-	N
EN AW-7075	EN AW-Al Zn5,5MgCu	A	-	-	A	A	A	-	-	A	-	-	A	N
EN AW-7175	EN AW-Al Zn5,5MgCu(B)	-	-	-	-	B	B	-	-	B	-	-	-	N
EN AW-7475	EN AW-Al Zn5,5MgCu(A)	-	-	-	-	-	-	-	-	B	-	-	-	N
EN AW-7178	EN AW-Al Zn7MgCu	-	-	-	-	B	B	-	-	-	-	-		N

Table 8 – Applications and forms of products – 8000 series

Alloy designation		Forgings and forging stock	Wire and drawing stock			Drawn products	Extruded products	Foil	Finstock	Sheet strip and plate	Can stock and closures	Slugs	Electro-welded tube	Alloys for foodstuff application
Numerical	Chemical symbols		Electrical	Welding	Mechanical									
EN AW-8006	EN AW-Al Fe1,5Mn	-	-	-	-	-	-	A	A	B	-	-	-	Y
EN AW-8008	EN AW-Al Fe1Mn0,8	-	-	-	-	-	-	A	-	-	-	-	-	Y
EN AW-8011A	EN AW-Al FeSi(A)	-	-	-	-	-	-	A	A	A	A	-	-	Y
EN AW-8111	EN AW-Al FeSi(B)	-	-	-	-	-	-	A	-	B	-	-	-	Y
EN AW-8211	EN AW-Al FeSi(C)	-	-	-	-	-	-	-	-	-	B	-	-	N
EN AW-8021B	EN AW-Al Fe1,5	-	-	-	-	-	-	B	-	-	-	-	-	Y
EN AW-8112	EN AW-Al 95	-	-	-	-	-	-	-	B	B	-	-	-	N
EN AW-8014	EN AW-Al Fe1,5Mn0,4	-	-	-	-	-	-	A	-	-	-	-	-	Y
EN AW-8015	EN AW-Al FeMn0,3	-	-	-	-	-	-	-	B	-	-	-	-	Y
EN AW-8016	EN AW-Al Fe1Mn	-	-	-	-	-	-	-	B	-	-	-	-	Y
EN AW-8018	EN AW-Al FeSiCu	-	-	-	-	-	-	-	-	-	B	-	-	Y
EN AW-8079	EN AW-Al Fe1Si	-	-	-	-	-	-	A	A	B	-	-	-	Y
EN AW-8090	EN AW-Al Li2,5Cu1,5Mg1	-	-	-	-	B	B	-	-	B	-	-	-	N

Annex A
(normative)

Guidelines for the registration of new wrought aluminium and aluminium alloys in CEN/TC 132 standards and for the elimination of existing alloys from these standards

A.1 General principles

Prior to the introduction of new alloys into CEN/TC 132 product standards, they shall be registered in EN 573-3 and EN 573-4. Only those alloys which are rated "Class A" in EN 573-4 can be specified in product standards.

Prior to the elimination of existing alloys from EN 573-3 and EN 573-4, they shall be deleted from all the relevant product standards. The same shall apply for the transformation of an A-rating into a B-rating in EN 573-4.

Proposals for the registration of new alloys in CEN/TC 132 standards or the elimination of existing alloys or the modification of a rating in EN 573-3 and EN 573-4 shall be made by the National Standards Organizations to the Secretariat of CEN/TC 132. Such proposal can be made at any time.

CEN/TC 132 shall prepare a draft of an addendum or of a revision, as appropriate, of EN 573-3 and EN 573-4. This draft shall be processed following the usual CEN/CENELEC procedures.

A.2 Rules for registration of new alloys

A.2.1 General conditions

Only those aluminium and aluminium alloys shall be considered for inclusion in CEN/TC 132 standards which are :

-registered as active alloys in the Registration Record « International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys », [1] "Teal Sheets", for the same numerical designation and the same composition limits for all elements ;

- currently manufactured and sold in at least one CEN member country, in at least one of the product forms listed in EN 573-4.

If at least one National Standards Organisation supports the proposal and if the conditions for "Class A alloy" are not met, an alloy will be rated "Class B".

Aluminium and aluminium alloys which are sold only for qualification purposes shall not be included into CEN/TC 132 standards.

A.2.2 Additional conditions for "Class A" alloys

The registration of an alloy as "Class A" alloy, as defined in EN 573-4, shall be considered only if for each relevant product form

- a proposal for mechanical properties is supplied by the National Standards Organisation ;

- at least three countries in the relevant working group are in favour of registration under "Class A".

NOTE At this stage, it is not required that a majority of working group members or countries represented in the working group are in favour of registration.

A.3 Procedure for registration of new alloys

A.3.1 Proposal of registration of a new alloy

In each member country of CEN, proposals for the registration of new alloys shall be submitted by the National Standards Organization to the secretariat of CEN/TC 132.

Each proposal shall contain the following information :

- the designation and composition limits as registered with the Aluminum Association ;

- a proposal for a chemical symbol based designation according to EN 573-2 ;

- an indication of the product forms for which a registration under "Class A" or "Class B" is requested ;

- a declaration that for each requested product form, this aluminium or aluminium alloy is being sold in the European market in commercial quantities on a regular basis, as defined in "Teal Sheets" i.e. for other than qualification purposes ;

- the mechanical properties values for at least one temper and at least one range of dimension, for each product form for which registration under "Class A" is requested.

A.3.2 Approval procedure for "Class A" alloys prior to TC enquiry

For each alloy and each relevant product form, the secretariat of CEN/TC 132 shall transmit the request for a rating under "Class A" to the convenors of the corresponding working groups for approval. Each convenor shall circulate the request among all the members of the working group for approval, and inform CEN/TC 132 Secretariat on the result.

CEN/TC 132 shall evaluate the results of these enquiries held within the different working groups in accordance with the rules specified in A.2.

A.3.3 Implementation of new alloys in CEN/TC 132 standards

For the inclusion of alloys under "Class A", the working groups responsible for the relevant product forms shall prepare an addendum or a revision of the corresponding standards in due time.

A.4 Modification of the rating of an alloy from "Class A" to "Class B"

Such a modification in EN 573-4 will be proposed by CEN/TC 132 as soon as for a given product form, mechanical properties have been eliminated from the corresponding product standard.

Requests to make such modifications shall be addressed to the convenor of the relevant working group or to the CEN/TC 132 Secretariat.

A.5 Deletion of alloys from EN 573-3 and EN 573-4

Shall be considered for deletion from EN 573-3 and EN 573-4 only those alloys for which no mechanical or other properties are specified in any CEN/TC 132 standards ("Class B" according to EN 573-4).

Proposals for deletion shall be made by the National Standards Organizations to CEN/TC 132 Secretariat which shall transmit the request to the next CEN/TC 132 Plenary Meeting.

Annex B
(informative)

European standards specifying mechanical properties for product groups relevant to Tables 1 to 8

Table B.1 - European standards specifying mechanical properties for product groups relevant to Tables 1 to 8

Product group	European standards with specified mechanical properties for the relevant product group
Forgings and forging stock	EN 586-2, EN 603-2
Drawn wire and drawing stock	EN 1301-2, EN 1715-3
Extruded products	EN 755-2
Drawn products	EN 754-2
Foil	EN 546-2
Finstock	EN 683-2
Sheet, strip and plate	EN 485-2
Canstock (cans, closures, lids)	EN 541
Slugs	EN 570
Electrowelded tubes	EN 1592-2

Definitions of the terms which define the product groups are given in EN 12258-1.

Bibliography

EN 485-2, *Aluminium and aluminium alloys – Sheet, strip and plate – Part 2 : Mechanical properties.*

EN 541, *Aluminium and aluminium alloys – Rolled products for cans, closures and lids – Specifications*.

EN 546-2, *Aluminium and aluminium alloys – Foil – Part 2 : Mechanical properties*.

EN 570, *Aluminium and aluminium alloys – Impact extrusion slugs obtained from wrought products – Specifications*.

EN 573-1, *Aluminium and aluminium alloys - Chemical composition and form of wrought products – Part 1 : Numerical designation system*.

EN 586-2, *Aluminium and aluminium alloys – Forgings – Part 2 : Mechanical properties and additional property requirements*.

EN 603-2, *Aluminium and aluminium alloys – Wrought forging stock – Part 2 : Mechanical properties.*

EN 683-2, *Aluminium and aluminium alloys – Finstock – Part 2 : Mechanical properties*.

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

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

EN 1301-2, *Aluminium and aluminium alloys – Drawn wire – Part 2 : Mechanical properties.*

EN 1592-2, *Aluminium and aluminium alloys – HF seam welded tubes – Part 2 : Mechanical properties.*

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

EN 12258-1, *Aluminium and aluminium alloys – Terms and definitions – Part 1 : General term*s.

[1] International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys.

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