INTERNATIONAL STANDARD

ISO 209-1

First edition
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Wrought aluminium and aluminium alloys — Chemical composition and forms of products —

Part 1 : Chemical composition

Aluminium et alliages d'aluminium corroyés — Composition chimique et formes des produits —

Partie 1 : Composition chimique

INTERNATIONAL ISO

Reference number
ISO 209-1 : 1989 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 209-1 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys.*

The chemical composition of the aluminium alloys formerly specified in ISO 2779 : 1973 and ISO 3335 : 1977 are now given in this part of ISO 209, while their mechanical properties are specified in ISO 6362-2 : 1987. Consequently, ISO 2779 : 1973 and ISO 3335 : 1977, as well as ISO Recommendation/R 209 : 1971, are cancelled.

ISO 209 consists of the following parts, under the general title *Wrought aluminium and aluminium alloys — Chemical composition and forms of products:*

— *Part 1: Chemical composition*

— *Part 2: Forms of products*

Annexes A and B form an integral part of this part of ISO 209.

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Wrought aluminium and aluminium alloys — Chemical composition and forms of products —

Part 1 :
Chemical composition

1 Scope

This part of ISO 209 specifies the chemical composition of wrought aluminium and aluminium alloys.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 209. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 209 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2092 : 1981, *Light metals and their alloys — Code of designation based on chemical symbols.*

ISO 3134-1 : 1985, *Light metals and their alloys — Terms and definitions — Part 1 : Materials.*

3 Definitions

For the purposes of this part of ISO 209, the definitions for aluminium and aluminium alloys given in ISO 3134-1 apply.

4 Chemical composition

The chemical composition of the aluminium and aluminium alloys is given in percentage by mass in tables 1 to 7. For purposes of determining conformance to these limits, an observed value or a calculated value obtained from analysis is rounded off, in accordance with rules for rounding given in annex A. The conformance does not preclude the possible presence of other elements not specified. If the purchaser's requirements necessitate limits for any other element not specified, these shall be agreed upon between the supplier and the purchaser. "The remainder" is the difference between 100 % and the sum of all other metallic elements present in amounts of 0,010 % or more each, expressed to the second decimal place before determining the sum.

The designations used are generally in accordance with the principles laid down in ISO 2092. However, some of the designations existing prior to the publication of the code described in ISO 2092 : 1981 have not been modified to avoid confusion.

Table 1 — Aluminium — Series 1000

ISO designation[1]	International registration record[2]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium[4]
													Each	Total[3]	
Al 99,8(A)	1080 A	min.	—	—	—	—	—	—	—	—	—	Ga : 0,03 max.	—	—	99,80
		max.	0,15	0,15	0,03	0,02	0,02	—	0,06	0,02	—		0,02	—	—
Al 99,7	1070 A	min.	—	—	—	—	—	—	—	—	—		—	—	99,70
		max.	0,20	0,25	0,03	0,03	0,03	—	0,07	0,03	—		0,03	—	—
E-Al 99,7	1370	min.	—	—	—	—	—	—	—	—	—	Ga : 0,03 max. B : 0,02 max. V + Ti : 0,02 max.	—	—	99,70
		max.	0,10	0,25	0,02	0,01	0,02	0,01	0,04	—	—		0,02	0,10	—
Al 99,6	1060	min.	—	—	—	—	—	—	—	—	—	V : 0,05 max.	—	—	99,60
		max.	0,25	0,35	0,05	0,03	0,03	—	0,05	0,03	—		0,03	—	—
Al 99,5	1050 A	min.	—	—	—	—	—	—	—	—	—		—	—	99,50
		max.	0,25	0,40	0,05	0,05	0,05	—	0,07	0,05	—		0,03	—	—
E-Al 99,5	1350	min.	—	—	—	—	—	—	—	—	—	Ga : 0,03 max. B : 0,05 max. V + Ti : 0,02 max.	—	—	99,50
		max.	0,10	0,40	0,05	0,01	—	0,01	0,05	—	—		0,03	0,10	—
Al 99,3	—	min.	—	—	—	—	—	—	—	—	—		—	—	99,30
		max.	0,3	0,3	0,05	0,025	0,05	—	0,1	0,15	—		0,05	—	—
Al 99,0	1200	min.	—		—	—	—	—	—	—	—		—	—	99,00
		max.	1,0 : Si + Fe		0,05	0,05	—	—	0,10	0,05	—		0,05	0,15	—
Al 99,0 Cu	1100	min.	—		0,05	—	—	—	—	—	—	Be : 0,000 8 max. for welding electrode and filler wire only	—	—	99,00
		max.	0,95 : Si + Fe		0,20	0,05	—	—	0,10	—	—		0,05	0,15	—

1) See annex B. "E-" is used for aluminium alloys with electrical characteristics guaranteed.

2) The four-digit designation listed is taken from the *Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys*, published by the Aluminum Association, Washington, DC.

3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

4) The aluminium content for unalloyed aluminium not made by a refining process is the difference between 100 % and the sum of all other metallic elements present in amounts of 0,010 % or more each, expressed to the second decimal place before determining the sum.

Table 2 — Aluminium alloys — Series 2000 — Al Cu

ISO Designation[1]	International registration record[2]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium
													Each	Total[3]	
Al Cu2,5Mg	2117	min.	—	—	2,2	—	0,20	—	—	—	—		—	—	remainder
		max.	0,8	0,7	3,0	0,20	0,50	0,10	0,25	—	—		0,05	0,15	
Al Cu4MgSi	2017	min.	0,20	—	3,5	0,40	0,40	—	—	—	—		—	—	
		max.	0,8	0,7	4,5	1,0	0,8	0,10	0,25	0,15	—	Ti + Zr : 0,20 max.[4]	0,05	0,15	
Al Cu4MgSi(A)	2017 A	min.	0,20	—	3,5	0,40	0,40	—	—	—	—		—	—	
		max.	0,8	0,7	4,5	1,0	1,0	0,10	0,25	—	—	Ti + Zr : 0,25 max.	0,05	0,15	
Al Cu4SiMg	2014	min.	0,50	—	3,9	0,40	0,20	—	—	—	—		—	—	
		max.	1,2	0,7	5,0	1,2	0,8	0,10	0,25	0,15	—	Ti + Zr : 0,20 max.[4]	0,05	0,15	
Al Cu4SiMg(A)	2014 A	min.	0,50	—	3,9	0,40	0,20	—	—	—	—	Ti + Zr : 0,20 max.	—	—	
		max.	0,9	0,50	5,0	1,2	0,8	0,10	0,25	0,15	—	Ni : 0,10 max.	0,05	0,15	
Al Cu4Mg1	2024	min.	—	—	3,8	0,30	1,2	—	—	—	—		—	—	
		max.	0,50	0,50	4,9	0,9	1,8	0,10	0,25	0,15	—	Ti + Zr : 0,20 max.[4]	0,05	0,15	
Al Cu4PbMg	2030	min.	—	—	3,3	0,20	0,50	—	—	—	—	Pb : 0,8 to 1,5	—	—	
		max.	0,8	0,7	4,5	1,0	1,3	0,10	0,50	0,20	—	Bi : 0,20 max.	0,10	0,30	
Al Cu6BiPb	2011	min.	—	—	5,0	—	—	—	—	—	—	Bi : 0,20 to 0,6	—	—	
		max.	0,40	0,7	6,0	—	—	—	0,30	—	—	Pb : 0,20 to 0,6	0,05	0,15	
Al Cu6Mn	2219	min.	—	—	5,8	0,20	—	—	—	0,02	0,10		—	—	
		max.	0,20	0,30	6,8	0,40	0,02	—	0,10	0,10	0,25	V : 0,05 to 0,15	0,05	0,15	

1) See annex B.

2) The four-digit designation listed is taken from the *Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys*, published by the Aluminum Association, Washington, DC.

3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

4) Ti + Zr is limited for extruded and forged products only, and only when the supplier and purchaser have mutually so agreed.

Table 3 — Aluminium alloys — Series 3000 — Al Mn

ISO designation[1]	International registration record[2]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium
													Each	Total[3]	
Al Mn0,5Mg0,5	3105	min.	—	—	—	0,30	0,20	—	—	—	—		—	—	remainder
		max.	0,6	0,7	0,30	0,8	0,8	0,20	0,40	0,10	—		0,05	0,15	
Al Mn1	3103	min.	—	—	—	0,9	—	—	—	—	—	Ti + Zr : 0,10 max.	—	—	
		max.	0,50	0,7	0,10	1,5	0,30	0,10	0,20	—	—		0,05	0,15	
Al Mn1Cu	3003	min.	—	—	0,05	1,0	—	—	—	—	—		—	—	
		max.	0,6	0,7	0,20	1,5	—	—	0,10	—	—		0,05	0,15	
Al Mn1Mg0,5	3005	min.	—	—	—	1,0	0,20	—	—	—	—		—	—	
		max.	0,6	0,7	0,30	1,5	0,6	0,10	0,25	0,10	—		0,05	0,15	
Al Mn1Mg1	3004	min.	—	—	—	1,0	0,8	—	—	—	—		—	—	
		max.	0,30	0,7	0,25	1,5	1,3	—	0,25	—	—		0,05	0,15	

1) See annex B.

2) The four-digit designation listed is taken from the *Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys,* published by the Aluminum Association, Washington, DC.

3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

Table 4 — Aluminium alloys — Series 4000 — Al Si

ISO designation[1]	International registration record[2]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium
													Each	Total[3]	
Al Si5	4043	min.	4,5	—	—	—	—	—	—	—	—	Be : 0,000 8 max. for welding electrode and filler wire only	—	—	remainder
		max.	6,0	0,8	0,30	0,05	0,05	—	0,10	0,20	—		0,05	0,15	
Al Si5(A)	4043A	min.	4,5	—	—	—	—	—	—	—	—		—	—	
		max.	6,0	0,6	0,30	0,15	0,20	—	0,10	0,15	—		0,05	0,15	
Al Si12	4047	min.	11,0	—	—	—	—	—	—	—	—		—	—	
		max.	13,0	0,8	0,30	0,15	0,10	—	0,20	—	—		0,05	0,15	
Al Si12(A)	4047A	min.	11,0	—	—	—	—	—	—	—	—		—	—	
		max.	13,0	0,6	0,30	0,15	0,10	—	0,20	0,15	—		0,05	0,15	

1) See annex B.

2) The four-digit designation listed is taken from the *Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys,* published by the Aluminum Association, Washington, DC.

3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

Table 5 — Aluminium alloys — Series 5000 — Al Mg

ISO designation[1)]	International registration record[2)]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium
													Each	Total[3)]	
Al Mg1(B)	5005	min. max.	— 0,30	— 0,7	— 0,20	— 0,20	0,50 1,1	— 0,10	— 0,25	— —	— —		— 0,05	— 0,15	remainder
Al Mg1,5(C)	5050	min. max.	— 0,40	— 0,7	— 0,20	— 0,10	1,1 1,8	— 0,10	— 0,25	— —	— —		— 0,05	— 0,15	
Al Mg2	5251	min. max.	— 0,40	— 0,50	— 0,15	0,10 0,50	1,7 2,4	— 0,15	— 0,15	— 0,15	— —		— 0,05	— 0,15	
Al Mg2,5	5052	min. max.	— 0,25	— 0,40	— 0,10	— 0,10	2,2 2,8	0,15 0,35	— 0,10	— —	— —		— 0,05	— 0,15	
Al Mg3	5754	min. max.	— 0,40	— 0,40	— 0,10	— 0,50	2,6 3,6	— 0,30	— 0,20	— 0,15	— —	Mn + Cr : 0,10 to 0,6	— 0,05	— 0,15	
Al Mg3Mn	5454	min. max.	— 0,25	— 0,40	— 0,10	0,50 1,0	2,4 3,0	0,05 0,20	— 0,25	— 0,20	— —		— 0,05	— 0,15	
Al Mg3Mn(A)	5554	min. max.	— 0,25	— 0,40	— 0,10	0,50 1,0	2,4 3,0	0,05 0,20	— 0,25	0,05 0,20	— —	Be : 0,000 8 max. for welding electrode and filler wire only	— 0,05	— 0,15	
Al Mg3,5	5154	min. max.	— 0,25	— 0,40	— 0,10	— 0,10	3,1 3,9	0,15 0,35	— 0,20	— 0,20	— —		— 0,05	— 0,15	
Al Mg3,5(A)	5154 A	min. max.	— 0,50	— 0,50	— 0,10	— 0,50	3,1 3,9	— 0,25	— 0,20	— 0,20	— —	Be : 0,000 8 max. for welding electrode and filler wire only Mn + Cr : 0,10 to 0,50	— 0,05	— 0,15	
Al Mg4	5086	min. max.	— 0,40	— 0,50	— 0,10	0,20 0,7	3,5 4,5	0,05 0,25	— 0,25	— 0,15	— —		— 0,05	— 0,15	
Al Mg4,5Mn0,7	5083	min. max.	— 0,40	— 0,40	— 0,10	0,40 1,0	4,0 4,9	0,05 0,25	— 0,25	— 0,15	— —		— 0,05	— 0,15	
Al Mg4,5Mn0,7(A)	5183	min. max.	— 0,40	— 0,40	— 0,10	0,50 1,0	4,3 5,2	0,05 0,25	— 0,25	— 0,15	— —	Be : 0,000 8 max. for welding electrode and filler wire only	— 0,05	— 0,15	
Al Mg5	5056 A	min. max.	— 0,40	— 0,50	— 0,10	0,10 0,6	4,5 5,6	— 0,20	— 0,20	— 0,20	— —	Cr + Mn : 0,10 to 0,6	— 0,05	— 0,15	
Al Mg5Mn1	5456	min. max.	— 0,25	— 0,40	— 0,10	0,50 1,0	4,7 5,5	0,05 0,20	— 0,25	— 0,20	— —		— 0,05	— 0,15	
Al Mg5Cr	5056	min. max.	— 0,30	— 0,40	— 0,10	0,05 0,20	4,5 5,6	0,05 0,20	— 0,10	— —	— —		— 0,05	— 0,15	
Al Mg5Cr(A)	5356	min. max.	— 0,25	— 0,40	— 0,10	0,05 0,20	4,5 5,5	0,05 0,20	— 0,10	0,06 0,20	— —	Be : 0,000 8 max. for welding electrode and filler wire only	— 0,05	— 0,15	

1) See annex B.

2) The four-digit designation listed is taken from the *Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys*, published by the Aluminum Association, Washington, DC.

3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

Table 6 — Aluminium alloys — Series 6000 — Al MgSi

ISO designation[1]	International registration record[2]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium
													Each	Total[3]	
Al MgSi	6060	min.	0,30	0,10	—	—	0,35	—	—	—	—		—	—	remainder
		max.	0,6	0,30	0,10	0,10	0,6	0,05	0,15	0,10	—		0,05	0,15	
E-Al MgSi	6101	min.	0,30	—	—	—	0,35	—	—	—	—	B : 0,06 max.	—	—	
		max.	0,7	0,50	0,10	0,03	0,8	0,03	0,10	—	—		0,03	0,10	
E-Al MgSi(A)	6101 A	min.	0,30	—	—	—	0,40	—	—	—	—		—	—	
		max.	0,7	0,40	0,05	—	0,9	—	—	—	—		0,03	0,10	
Al Mg0,7Si	6063	min.	0,20	—	—	—	0,45	—	—	—	—		—	—	
		max.	0,6	0,35	0,10	0,10	0,9	0,10	0,10	0,10	—		0,05	0,15	
Al Mg0,7Si(A)	6063 A	min.	0,30	0,15	—	—	0,6	—	—	—	—		—	—	
		max.	0,6	0,35	0,10	0,15	0,9	0,05	0,15	0,10	—		0,05	0,15	
Al Mg1SiCu	6061	min.	0,40	—	0,15	—	0,8	0,04	—	—	—		—	—	
		max.	0,8	0,7	0,40	0,15	1,2	0,35	0,25	0,15	—		0,05	0,15	
Al Mg1SiPb	6262	min.	0,40	—	0,15	—	0,8	0,04	—	—	—	Bi : 0,40 to 0,7 Pb : 0,40 to 0,7	—	—	
		max.	0,8	0,7	0,40	0,15	1,2	0,14	0,25	0,15	—		0,05	0,15	
Al SiMg	6005	min.	0,6	—	—	—	0,40	—	—	—	—		—	—	
		max.	0,9	0,35	0,10	0,10	0,6	0,10	0,10	0,10	—		0,05	0,15	
Al SiMg(A)	6005 A	min.	0,50	—	—	—	0,40	—	—	—	—	Mn + Cr : 0,12 to 0,50	—	—	
		max.	0,9	0,35	0,30	0,50	0,7	0,30	0,20	0,10	—		0,05	0,15	
Al Si1MgMn	6082	min.	0,7	—	—	0,40	0,6	—	—	—	—		—	—	
		max.	1,3	0,50	0,10	1,0	1,2	0,25	0,20	0,10	—		0,05	0,15	
Al Si1Mg0,5Mn	6351	min.	0,7	—	—	0,40	0,40	—	—	—	—		—	—	
		max.	1,3	0,50	0,10	0,8	0,8	—	0,20	0,20	—		0,05	0,15	
Al Si1Mg0,8	6181	min.	0,8	—	—	—	0,6	—	—	—	—		—	—	
		max.	1,2	0,45	0,10	0,15	1,0	0,10	0,20	0,10	—		0,05	0,15	

1) See annex B. "E-" is used for aluminium alloys with electrical characteristics guaranteed.

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3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

Table 7 — Aluminium alloys — Series 7000 — Al Zn

ISO designation[1]	International registration record[2]	Limit	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Remarks	Others		Aluminium
													Each	Total[3]	
Al Zn4Mg1,5Mn	—	min.	—	—	—	0,2	1,3	0,08	3,4	—	0,15		—	—	remainder
		max.	0,3	0,4	0,1	0,6	1,8	0,2	4,0	0,1	0,22		0,05	0,15	
Al Zn4,5Mg1	7020	min.	—	—	—	0,05	1,0	0,10	4,0	—	0,08	Ti + Zr : 0,08 to 0,25	—	—	
		max.	0,35	0,40	0,20	0,50	1,4	0,35	5,0	—	0,20		0,05	0,15	
Al Zn4,5Mg1,5Mn	7005	min.	—	—	—	0,20	1,0	0,06	4,0	0,01	0,08		—	—	
		max.	0,35	0,40	0,10	0,7	1,8	0,20	5,0	0,06	0,20		0,05	0,15	
Al Zn5,5MgCu	7075	min.	—	—	1,2	—	2,1	0,18	5,1	—	—	Ti + Zr : 0,25 max.[4]	—	—	
		max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20	—		0,05	0,15	
Al Zn5,5MgCu(A)	7475	min.	—	—	1,2	—	1,9	0,18	5,2	—	—		—	—	
		max.	0,10	0,12	1,9	0,06	2,6	0,25	6,2	0,06	—		0,05	0,15	
Al Zn6CuMgZr	7050	min.	—	—	2,0	—	1,9	—	5,7	—	0,08		—	—	
		max.	0,12	0,15	2,6	0,10	2,6	0,04	6,7	0,06	0,15		0,05	0,15	
Al Zn6MgCu	7010	min.	—	—	1,5	—	2,1	—	5,7	—	0,10	Ni : 0,05 max.	—	—	
		max.	0,12	0,15	2,0	0,10	2,6	0,05	6,7	0,06	0,16		0,05	0,15	
Al Zn6MgCuMn	—	min.	—	—	1,4	0,2	1,8	0,1	5,0	—	—	Ni : 0,1 max.	—	—	
		max.	0,5	0,5	2,0	0,6	2,8	0,25	7,0	0,05	—		0,05	0,1	
Al Zn7MgCu	7178	min.	—	—	1,6	—	2,4	0,18	6,3	—	—		—	—	
		max.	0,40	0,50	2,4	0,30	3,1	0,28	7,3	0,20	—		0,05	0,15	
Al Zn8MgCu	7049 A	min.	—	—	1,2	—	2,1	0,05	7,2	—	—	Ti + Zr : 0,25 max.	—	—	
		max.	0,40	0,50	1,9	0,50	3,1	0,25	8,4	—	—		0,05	0,15	

1) See annex B.

2) The four-digit designation listed is taken from the *Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys,* published by the Aluminum Association, Washington, DC.

3) The sum of those "others" metallic elements 0,010 % or more, each expressed to the second decimal place before determining the sum.

4) Ti + Zr is limited for extruded and forged products only, and only when the supplier and purchaser have mutually so agreed.

Annex A
(normative)

Rules for rounding for determination of compliance

In recording test results, the number representing the result of a test to determine an element concentration shall be expressed to the same number of decimal places as the corresponding limit in this part of ISO 209.

The following rules shall be used for rounding :

a) when the figure immediately after the last figure to be retained is less than 5, the last figure to be retained remains unchanged;

b) when the figure immediately after the last figure to be retained is greater than 5, or equal to 5 and followed by at least one figure other than zero, the last figure to be retained is increased by one;

c) when the figure immediately after the last figure to be retained is equal to 5 and followed by zeros only, the last figure to be retained remains unchanged if even and is increased by one if odd.

Annex B
(normative)

Guide for ISO designation of wrought aluminium and wrought aluminium alloys : Rules for distinguishing between two alloys with neighbouring compositions

B.1 Decreasing priorities

B.1.1 The main alloying element is distinguished by specifying the required content (middle of range) rounded off to the nearest 0,5.

Examples :

Al Mg2 (5251)
Al Mg2,5 (5052)

B.1.2 The secondary alloying elements are distinguished by specifying the required content (middle of range) rounded off to the nearest 0,1, for two elements at most.

Example :

Al Si1Mg0,8 (6181)

B.1.3 The chemical symbols for addition elements should be limited to four elements.

Example :

Al Zn6CuMgZr (7050)

B.1.4 If the preceding rule is not sufficient for distinguishing between several alloys, a suffix shall be used : A, B, C, in brackets, according to the date of registration with ISO, the first registered alloy being written without a suffix.

Examples :

Al Mg0,7Si (6063)
Al Mg0,7Si(A) (6063 A)
Al Mg0,7Si(B) (6463)

B.1.5 Suffixes (A), (B), etc., should not be confused with the suffixes of

— the Aluminum Association;

— national or community standards.

B.2 Special applications of alloys

These should be restricted as far as practical. A prefix-letter can be used :

Examples :

E-Al 99,5
E-Al MgSi } Electrical application

B.3 Writing rules

These shall be in accordance with ISO 2092.

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