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**Aluminium and aluminium alloys —  
Chemical composition**

*Aluminium et alliages d'aluminium — Composition chimique*



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## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 209 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 6, *Wrought aluminium and aluminium alloys*.

ISO 209 cancels and replaces ISO 209-1:1989 and ISO 209-2:1989.



# Aluminium and aluminium alloys — Chemical composition

## 1 Scope

This International Standard specifies the designations indicating the chemical composition of aluminium and aluminium alloys.

## 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.

*International Alloy Designations and Chemical Composition Limits for Wrought Aluminum and Wrought Aluminum Alloys* published by the Aluminum Association 1525 Wilson Boulevard Suite 600 – Arlington, VA 22209, USA (otherwise known as “Teal Sheets”).

This document is downloadable without charge at <http://www.aluminum.org/tealsheets>.

## 3 Designation and chemical composition

The chemical composition of wrought aluminium and aluminium alloys within the scope of this International Standard is specified in the Document *International Alloy Designations and Chemical Composition Limits for Wrought Aluminium and Wrought Aluminum Alloys — Unified North American and International Registration Records*, edited by the Aluminum Association [1525 Wilson Boulevard Suite 600 – Arlington, VA 22209, USA (Teal Sheet)].

In order to differentiate from four-digit designation systems for other materials, it is recommended to introduce a prefix to these registered designations that do not change the registered composition and should be considered equivalent to these listed in this document. Examples of such equivalent designations are the AW-XXXX used in European EN Standards and the A9XXXX designations used in the Unified Numbering System and AXXXX for the Japanese Industrial Standards.

## Annex A (informative)

### Cross-reference of former ISO designation to declaration of accord

**Table A.1 — Cross-references of former ISO designation and declaration of accord**

Former designation	International registration record <sup>a</sup>
AW-AI 99,3	—
AW-AI 99,5	—
AW-AI 99,6	AW-1060 A
AW-AI 99,7	AW-1070 A
AW-AI 99,8	AW-1080 A
AW-AI 99,0Cu	AW-1100
AW-AI 99,0	AW-1200
AW-E-AI 99,5	AW-1350
AW-E-AI 99,7	AW-1370
AW-AI Cu <sub>6</sub> BiPb	AW-2011
AW-AI Cu <sub>4</sub> SiMg	AW-2014
AW-AI Cu <sub>4</sub> SiMg	AW-2014 A
AW-AI Cu <sub>4</sub> MgSi	AW-2017
AW-AI Cu <sub>4</sub> MgSi	AW-2017 A
AW-AI Cu <sub>4</sub> Mg <sub>1</sub>	AW-2024
AW-AI Cu <sub>4</sub> PbMg	AW-2030
AW-AI Cu <sub>2,5</sub> Mg	AW-2117
AW-AI Cu <sub>6</sub> MN	AW-2219
AW-AI Mn <sub>1</sub> Cu	AW-3003
AW-AI Mn <sub>1</sub> Mg <sub>1</sub>	AW-3004
AW-AI Mn <sub>1</sub> Mg <sub>0,5</sub>	AW-3005
AW-AI Mn <sub>1</sub>	AW-3103
AW-AI Mn <sub>0,5</sub> Mg <sub>0,5</sub>	AW-3105
AW-AI Mn <sub>1</sub>	AW-3203
AW-AI Si <sub>5</sub>	AW-4043
AW-AI Si <sub>5</sub>	AW-4043 A
AW-AI Si <sub>12</sub>	AW-4047
AW-AI Si <sub>12</sub>	AW-4047 A
AW-AI Mg <sub>1</sub>	AW-5005
AW-AI Mg <sub>5</sub>	AW-5019
AW-AI Mg <sub>1,5</sub>	AW-5050

Table A.1 (continued)

Former designation	International registration record <sup>a</sup>
AW-Al Mg <sub>2,5</sub>	AW-5052
AW-Al Mg <sub>5Cr</sub>	AW-5056
AW-Al Mg <sub>4,5</sub>	AW-5082
AW-Al Mg <sub>4,5Mn0,7</sub>	AW-5083
AW-Al Mg <sub>4</sub>	AW-5086
AW-Al Mg <sub>3,5</sub>	AW-5154
AW-Al Mg <sub>3,5</sub>	AW-5154 A
AW-Al Mg <sub>4,5 Mn0,4</sub>	AW-5182
AW-Al Mg <sub>4,5Mn0,7</sub>	AW-5183
AW-Al Mg <sub>2</sub>	AW-5251
AW-Al Mg <sub>3</sub>	AW-5254
AW-Al Mg <sub>5Cr</sub>	AW-5356
AW-Al Mg <sub>3Mn</sub>	AW-5454
AW-Al Mg <sub>5Mn1</sub>	AW-5456
AW-Al Mg <sub>3Mn</sub>	AW-5554
AW-Al Mg <sub>3</sub>	AW-5754
AW-Al SiMg	AW-6005 A
AW-Al MgSi	AW-6060
AW-Al Mg <sub>1SiCu</sub>	AW-6061
AW-Al Mg <sub>0,7Si</sub>	AW-6063
AW-Al Si <sub>1MgMn</sub>	AW-6082
AW-E-Al MgSi	AW-6101
AW-E-Al MgSi	AW-6101 A
AW-Al Si <sub>1Mg0,8</sub>	AW-6181
AW-Al Mg <sub>1SPb</sub>	AW-6262
AW-Al Si <sub>1Mg0,5Mn</sub>	AW-6351
AW-Al Zn <sub>4Mg1,5Mn</sub>	—
AW-Al Zn <sub>6Mg0,8Zn</sub>	—
AW-Al Zn <sub>4,5Mg1</sub>	AW-7020
AW-Al Zn <sub>8MgCu</sub>	AW-7049 A
AW-Al Zn <sub>6CuMgZr</sub>	AW-7050
AW-Al Zn <sub>6MgCuMn</sub>	—
AW-Al Zn <sub>5,5MgCu</sub>	AW-7075
AW-Al Zn <sub>7MgCu</sub>	AW-7178
AW-Al Zn <sub>5,5MgCu</sub>	AW-7475
NOTE Cross-references may not be exactly equivalent.	
<sup>a</sup> The four-digit numbers listed are taken from the Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminium and Wrought Aluminium Alloys, published by the Aluminum Association, Washington, DC.	

