Irish Standard
I.S. EN 1676:2010

Aluminium and aluminium alloys - Alloyed ingots for remelting - Specifications

I.S. EN 1676:2010

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English Version

Aluminium and aluminium alloys - Alloyed ingots for remelting - Specifications

Aluminium et alliages d'aluminium - Lingots pour refusion en aluminium allié - Spécifications

Aluminium and Aluminiumlegierungen - Legiertes Aluminium in Masseln - Spezifikationen

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

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Foreword

This document (EN 1676:2010) 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of an identical text or by endorsement, at the latest by September 2010, and conflicting national standards shall be withdrawn at the latest by September 2010.

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.

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This document supersedes EN 1676:1996.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 10 "Castings" to revise EN 1676:1996.

In addition to some additional minor and editorial changes, the following technical modifications were introduced during the revision:

a) New normative references were added (EN 12258-1, EN 14242 and EN 14361). Normative reference to EN ISO 9000-1 was deleted.

b) Term and definition 3.8, order document, was added.

c) New notes on Clauses 5.3 and 5.5 were added.

d) Clause 6.1, Chemical analysis, was modified.

e) New note on Clause 6.2 was added.

f) Clause 6.3, Rounding rules for determination of compliance, was added.

g) In Table 1, the following alloys were deleted:

   1) EN AB-45200 [EN AB-Al Si5Cu3Mn];

   2) EN AB-51000 [EN AB-Al Mg3(b)];

   3) EN AB-71000 [EN AB-Al Zn5Mg].

h) In Table 1, the following new alloys were added:

   1) EN AB-21200 [EN AB-Al Cu4MnMg];

   2) EN AB-43500 [EN AB-Al Si10MnMg];

   3) EN AB-44500 [EN AB-Al Si12(Fe)(b)];

   4) EN AB-45500 [EN AB-Al Si7Cu0,5Mg];

5) EN AB-48100 [EN AB-Al Si17Cu4Mg];

6) EN AB-51500 [EN AB-Al Mg5Si2Mn];

7) EN AB-71100 [EN AB-Al Zn10Si8Mg].

i) In Table 1, footnotes “b” to “f” were added.

j) A Bibliography was also added.

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, Croatia, 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 Scope

This European Standard defines the requirements for grades of alloyed aluminium ingots intended for remelting.

It specifies the classifications and designations applicable to these grades, the conditions in which they are produced, their properties and the marks by which they are identified.

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 1780-1, *Aluminium and aluminium alloys — Designation of alloyed aluminium ingots for remelting, master alloys and castings — Part 1: Numerical designation system*

EN 1780-2, *Aluminium and aluminium alloys — Designation of alloyed aluminium ingots for remelting, master alloys and castings — Part 2: Chemical symbol based designation system*

EN 1780-3, *Aluminium and aluminium alloys — Designation of alloyed aluminium ingots for remelting, master alloys and castings — Part 3: Writing rules for chemical composition*

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 14361, *Aluminium and aluminium alloys — Chemical analysis — Sampling from metal melts*

3 Terms and definitions

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

3.1
alloy
metallic material, homogeneous on a macro scale, consisting of two or more elements so combined that they cannot readily be separated by physical means

[EN 12258-1:1998, 3.2.1]

3.2
alloying element
metallic or non-metallic element intentionally added to, or naturally contained by, a basic metal and the amount of which is controlled within specific upper and lower limits for the purpose of giving that metal certain special properties

[EN 12258-1:1998, 3.2.2]

3.3
impurity
metallic or non-metallic element present but not intentionally added to a metal, and the minimum content of which is not controlled

[EN 12258-1:1998, 3.2.3]