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Standards

Irish Standard  
I.S. EN 1676:2020

# Aluminium and aluminium alloys - Alloyed ingots for remelting - Specifications

**I.S. EN 1676:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document is based on:*

EN 1676:2020

*Published:*

2020-04-22

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2020-05-11

ICS number:

77.120.10

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

I.S. EN 1676:2020 is the adopted Irish version of the European Document EN 1676:2020, Aluminium and aluminium alloys - Alloyed ingots for remelting - Specifications

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**EUROPEAN STANDARD**

**EN 1676**

**NORME EUROPÉENNE**

**EUROPÄISCHE NORM**

April 2020

ICS 77.120.10

Supersedes EN 1676:2010

English Version

## **Aluminium and aluminium alloys - Alloyed ingots for remelting - Specifications**

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

Aluminium und Aluminiumlegierungen - Legierte  
Masseln zum Wiedereinschmelzen - Spezifikationen

This European Standard was approved by CEN on 2 March 2020.

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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-CENELEC Management Centre has the same status as the official versions.

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## European foreword

This document (EN 1676:2020) 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of an identical text or by endorsement, at the latest by October 2020, and conflicting national standards shall be withdrawn at the latest by October 2020.

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

This document supersedes EN 1676:2010.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 23 “Revision of EN 1676 and EN 1706” to revise EN 1676:2010.

In comparison with EN 1676:2010, the following significant changes were made:

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

- 1) EN AB-21200 [EN AB-Al Cu<sub>4</sub>MnMg];
- 2) EN AB-43100 [EN AB-Al Si<sub>10</sub>Mg(b)].

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

- 1) EN AB-42300 [EN AB-Al Si<sub>7</sub>(Mg)];
- 2) EN AB-42400 [EN AB-Al Si<sub>7</sub>MnMg];
- 3) EN AB-44600 [EN AB-Al Si<sub>10</sub>Mn];
- 4) EN AB-45600 [EN AB-Al Si<sub>7</sub>Cu<sub>1</sub>Mg<sub>0,6</sub>];
- 5) EN AB-47200 [EN AB-Al Si<sub>12</sub>(Fe)];
- 6) EN AB-48200 [EN AB-Al Si<sub>15</sub>Cu<sub>3</sub>MgFe].

c) In Table 1, the maximum limit for lead was reduced to 0,29 %.

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- d) In Table 1, the chemical composition limits of the alloys EN AB-43000 [EN AB-Al Si10Mg], EN AB-43300 [EN AB-Al Si9Mg] and EN AB-51300 [EN AB-AlMg5] were modified.
- e) In Table 1, footnotes were added and modified.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



## 1 Scope

This document 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 documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12258-1:2012, *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 12258-1:2012 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>

### 3.1

#### **alloy**

substance having metallic properties and composed of two or more elements so combined that they cannot readily be separated by physical means

[SOURCE: EN 12258-1:2012, 2.2.1]

### 3.2

#### **alloying element**

metallic or non-metallic element which is controlled within specific upper limits and lower limits for the purpose of giving the aluminium alloy certain special properties

[SOURCE: EN 12258-1:2012, 2.2.3]

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