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Edition 1

Any reference to SABS EN 1676 is deemed
to be a reference to this standard
(Government Notice No. 1373 of 8 November 2002)

SOUTH AFRICAN NATIONAL STANDARD

Aluminium and aluminium alloys — Alloyed ingots for remelting — Specifications

This national standard is the identical implementation of EN 1676:1996 and is adopted with the permission of CEN, rue de Stassart 36, B-1050 Brussels.

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Table of changes

Change No.	Date	Scope
Nat. amdt 1	2007	Amended to change the designation from SABS to SANS, with no technical changes.

National foreword

This South African standard was approved by National Committee StanSA SC 5120.20F, *Engineering materials — Non-ferrous metals*, in accordance with procedures of Standards South Africa, in compliance with annex 3 of the WTO/TBT agreement.

This standard was published in March 2007. This SANS edition is technically identical to SABS edition 1 (SABS EN 1676:1996).

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1676

November 1996

ICS 77.150.10

Descriptors: Aluminium, aluminium alloys, ingots, melting, specifications, definitions, chemical composition, designation, defects, quality control, tests, marking, packing

English version

Aluminium and aluminium alloys — Alloyed ingots for remelting — Specifications

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

Aluminium und Aluminiumlegierungen — Legiertes
Aluminium in Masseln — Spezifikationen

This European Standard was approved by CEN on 1996-10-25. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard 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 May 1997, and conflicting national standards shall be withdrawn at the latest by May 1997.

Within its programme of work, Technical Committee CEN/TC 132 entrusted CEN/TC 132/WG 1, Liquid metal, unalloyed and alloyed ingots, to prepare the following standard:

EN 1676 *Aluminium and aluminium alloys — Alloyed ingots for remelting — Specifications*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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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

This European Standard incorporates by dated and 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.

EN 1780-1	<i>Aluminium and aluminium alloys — Designation of unalloyed and alloyed aluminium ingots for remelting, master alloys and castings — Part 1 : Numerical designation system</i>
EN 1780-2	<i>Aluminium and aluminium alloys — Designation of unalloyed and alloyed aluminium ingots for remelting, master alloys and castings — Part 2 : Chemical symbol based designation system</i>
EN 1780-3	<i>Aluminium and aluminium alloys — Designation of unalloyed and alloyed aluminium ingots for remelting, master alloys and castings — Part 3 : Writing rules for chemical composition</i>
EN ISO 9000-1	<i>Quality management and quality assurance standards — Part 1 : Guidelines for selection and use (ISO 9000-1:1994)</i>

3 Definitions

For the purposes of this standard, the following definitions apply.

3.1 alloy

Metallic substance of a mixture of the basic metallic element (the element predominating by mass) and other elements such as alloying elements and impurities.

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.

3.3 impurity

Metallic or non-metallic element present but which is not intentionally added to a metal and for which no lower limit is specified.

3.4 casting alloy

Alloy primarily intended for the production of castings.

3.5 ingot for remelting

Metal cast into a form suitable for remelting which has been processed, as appropriate, to adjust the chemical composition and to control certain metallic or non-metallic impurities.

3.6 casting

General term for products at or near finished shape, formed by solidification in a mould.

3.7 melt

Quantity of liquid metal that has simultaneously undergone the same preparatory treatment in the furnace before the casting operation.

4 Orders or tenders

The order or tender shall define the product required and shall contain the following information :

- designation of the aluminium alloy according to this European Standard (or the purchaser code after agreement between the supplier and the purchaser);
- form of the product;
- quantity:
 - mass (in metric tonnes);
 - tolerance quantity if required.
- any requirements for Certificates of Conformity, test and/or analysis reports or inspection certificates;
- any additional requirements agreed between the supplier and the purchaser, such as metallurgical structure, samples, delivery details, etc.

5 Requirements

5.1 Production and manufacturing processes

Unless otherwise specified in the order, the production and manufacturing processes shall be left to the discretion of the producer.

Unless it is explicitly stated in the order, no obligation shall be placed on the producer to use the same processes for subsequent and similar orders. However, the supplier should inform the purchaser of any change which may affect the quality of the ingots or the final products.

5.2 Quality control

The supplier shall be responsible for carrying out all inspection and tests required by the relevant European Standard and/or the particular specification, prior to shipment of the product. If the purchaser wishes to inspect the product at the supplier's works, he shall stipulate this at the time of placing the order.