BRITISH STANDARD

BS EN 13920-7:2003

Aluminium and aluminium alloys — Scrap —

Part 7: Scrap consisting of castings

The European Standard EN 13920-7:2003 has the status of a British Standard

ICS 13.030.50; 77.120.10

British Standards

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National foreword

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Foreword

This document (EN 13920-7:2003) 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of an identical text or by endorsement, at the latest by October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

Within its programme of work, Technical Committee CEN/TC 132 has entrusted CEN/TC132/WG 20 "Scrap" to prepare the following standard.

EN 13920 comprises the following parts under the general title "Aluminium and aluminium alloys — Scrap":

Part 1: General requirements, sampling and tests

Part 2: Unalloyed aluminium scrap

Part 3: Wire and cable scrap

Part 4: Scrap consisting of one single wrought alloy

Part 5: Scrap consisting of two or more wrought alloys of the same series

Part 6: Scrap consisting of two or more wrought alloys

Part 7: Scrap consisting of castings

Part 8: Scrap consisting of non-ferrous materials from shredding processes destined to aluminium separation processes

Part 9: Scrap from aluminium separation processes of non-ferrous shredded materials

Part 10: Scrap consisting of used aluminium beverage cans

Part 11: Scrap consisting of aluminium-copper radiators

Part 12: Turnings consisting of one single alloy

Part 13: Mixed turnings consisting of two or more alloys

Part 14: Scrap from post-consumer aluminium packagings

Part 15: Decoated aluminium scrap from post-consumer aluminium packagings

Part 16: Scrap consisting of skimmings, drosses, spills and metallics

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1 Scope

This European Standard specifies characteristics, chemical composition and metal yield of aluminium scrap consisting of aluminium castings in entire or fragmented pieces.

Examples

Production scrap from foundries, e.g. rejected pieces and risings.

Collected castings of various alloys e.g. from maintenance or dismantling of vehicles, household appliances, industrial machinery etc.

Selected whole castings, e.g. pistons, wheels.

2 Normative references

This European Standard incorporates by dated or 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 (including amendments).

prEN 12258-3:2000, Aluminium and aluminium alloys — Terms and definitions — Part 3: Scrap.

EN 13920-1:2003, Aluminium and aluminium alloys — Scrap — Part 1: General requirements, sampling and tests.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in prEN 12258-3:2000 and EN 13920-1:2003 apply.

4 Ordering information

The ordering information shall include:

- the number of this European Standard (EN 13920-7);
- the scrap category (scrap consisting of castings);
- the gross mass of the consignment;
- the definition of the beginning and end of the period during which the scrap shall be delivered;
- any characteristics deviating from those specified under 5.2, 5.3 and 5.4.

The ordering information should include:

- information about the origin of the scrap;
- any information about size and surface condition of the pieces, whenever meaningful.

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5 Requirements

5.1 General

In addition to the requirements specified in EN 13920-1, the requirements given in 5.2, 5.3 and 5.4 shall be met.

If the scrap does not meet all these requirements, the supplier shall notify the deviating characteristics to the purchaser and shall obtain his agreement before shipment.

5.2 Characteristics

The scrap shall not contain pieces larger than (600×600×400) mm. The percentage of volatile substances shall not exceed 2 % (mass fraction). The total percentage of other non-metallic foreign material shall not exceed 2 % (mass fraction). The total percentage of foreign metallic material, either free or attached, shall not exceed 2 % (mass fraction).

A maximum of 5 % (mass fraction) of pieces with less than 5 cm maximum diameter is permitted.

5.3 Chemical composition

If not otherwise agreed, the chemical composition of a lot of mixed castings after deironing and melting shall conform to the requirements given in Table 1.

Table 1 — Chemical composition

Composition in percent (fraction mass)

Si	Fe	Cu	Mn	Mg	Ni	Zn	Ti	Pb	Sn	Others each	Al[a]
max.	max.	max.	max.	max.	max.	max.	max.	max.	max.	max.	min.
13,5	1,1	3,5	0,50	0,30	0,30	1,2	0,15	0,20	0,10	0,15	remainder

a The aluminium content is the difference between 100 % and the total of all the other elements present with values no less than 0,010 % rounded to the second decimal (before the calculation is made).

When chemical compositions for lots of castings, either sorted or obtained directly from casting processes, are known and are identical or close to those of registered casting alloys, then they shall be declared by the supplier and agreed upon by the purchaser.

5.4 Metal yield

The metal yield of scrap pertaining to this standard as determined in accordance with EN 13920-1 shall be ≥ 90 %.

NOTE For qualities with a content of foreign materials higher than that specified in 5.2, the metal yield will be correspondingly lower.

6 Classification procedure, treatment of non-conformities and arbitration

The classification procedure which includes sampling and tests, the treatment of non-conformities and arbitration shall be in accordance with EN 13920-1, as appropriate.

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