

Designation: A 550 - 78 (Reapproved 2000)

Standard Specification for Ferrocolumbium¹

This standard is issued under the fixed designation A 550; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

- 1.1 This specification covers three grades of ferrocolumbium, designated Low-Alloy Steel Grade, Alloy and Stainless Steel Grade, and High-Purity Grade.
- 1.2 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

- 2.1 ASTM Standards:
- E 11 Specification for Wire-Cloth Sieves for Testing Purposes²
- E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications²
- E 31 Methods for Chemical Analysis of Ferroalloys³
- E 32 Practices for Sampling Ferroalloys and Steel Additives for Determination of Chemical Composition³

3. Ordering Information

- 3.1 Order for material to this specification shall include the following information:
 - 3.1.1 Quantity,
 - 3.1.2 Name of material,
 - 3.1.3 ASTM designation and year of issue,
 - 3.1.4 Grade (Section 1),
 - 3.1.5 Size, if appropriate (Section 5), and
- 3.1.6 Special requirements for packing, inspection, analysis reports, etc., as appropriate.

Note 1—A typical ordering description is as follows: 100 000 lb ferrocolumbium, ASTM A 550, Low-Alloy Steel Grade, 2 in. (51 mm) by Down, packed in sealed containers.

3.2 Although ferrocolumbium is purchased by total net weight, the customary basis of payment is on the contained weight of columbium.

4. Chemical Composition

- 4.1 The various grades shall conform to the requirements as to chemical composition specified in Table 1 and Table 2.
- 4.2 *Chemical Analysis*—The chemical analysis of the material shall be made in accordance with Methods E 31. Where no method is given in Methods E 31 for the analysis for a particular element, the analysis shall be made in accordance with a procedure agreed upon by the manufacturer and purchaser.

5. Sizing

- 5.1 Ferrocolumbium is available in these sizes: 2 in. (50.8 mm) by down, ½ in. (12.7 mm) by down, ¼in. (6.35 mm) by down, 8 mesh (2.38 mm) by down and 20 mesh (0.841 mm) by down. Other sizes may be specified as agreed upon. The size shall be specified in the order.
 - 5.2 Size tolerances as given in Table 3 shall apply.

6. Sampling

- 6.1 The material shall be sampled in accordance with Practices E 32.
- 6.2 Other methods of sampling which have been agreed upon by manufacturer and purchaser may be used. In case of discrepancy, Practices E 32 shall be used for referee.

7. Inspection

7.1 The manufacturer shall afford the inspector representing the purchaser all reasonable facilities to satisfy him that the material is being furnished in accordance with this specification.

8. Rejection

8.1 Any claims or rejections based upon check analysis shall be made to the manufacturer within 45 days from the receipt of the material by the purchasers.

9. Packaging and Package Marking

- 9.1 *Packaging*:
- 9.1.1 Ferrocolumbium shall be packed so that it will be protected from loss or damage during shipment.

¹ This specification is under the jurisdiction of ASTM Committee A-1 on Steel, Stainless Steel, and Related Alloys and is the direct responsibility of Subcommittee A 01.18 on Castings.

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² Annual Book of ASTM Standards, Vol 14.02.

³ Annual Book of ASTM Standards, Vol 03.05.