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Standard Specification for Ferrotitanium¹

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1. Scope

1.1 This specification covers four grades of ferrotitanium, designated A, B, C, and D.

2. Referenced Documents

2.1 *ASTM Standards*:²

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E 32 Practices for Sampling Ferrous Alloys and Steel Additives for Determination of Chemical Composition

3. Ordering Information

3.1 The material furnished under this specification shall be crushed to the specified size, and mixed before packaging, so that the quality in each package is uniform with the lot.

3.2 The reported percentage of titanium as obtained by chemical analysis shall be used to determine the billing of the material to the purchaser.

4. Chemical Composition

4.1 The various grades shall conform to the requirements as to chemical composition prescribed in Tables 1-4.

5. Chemical Analysis

5.1 The chemical analysis of the material shall be made in accordance with a procedure agreed upon between the manufacturer and the purchaser.

6. Sampling

6.1 The material shall be sampled in accordance with Practices E 32.

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel, and Related Alloys and is the direct responsibility of Subcommittee A01.18 on Castings.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

TABLE 1 Chemical Requirements^A

Grade	Composition, %			
	Titanium ^B	Carbon, max	Silicon, max	Aluminum, max
A	65.0–75.0	0.15	0.25	0.50
B	65.0–75.0	0.20	0.25	5.0
C	35.0–45.0	0.15	5.0	8.0
D	15.0–25.0	5.0	5.0	8.0

^A For purposes of determining conformance with these specifications, the reported analysis shall be rounded to the nearest unit in the last right-hand place of figures used in expressing the limiting value, in accordance with the rounding method of recommended Practice E 29.

^B For purposes of determining the titanium content of any shipment, titanium shall be reported to the nearest 0.01 %, applying the same rounding procedure as prescribed in Footnote A.

7. Inspection

7.1 The inspector representing the purchaser shall have free entry, at all times while work on the contract of the purchaser is being performed, to all parts of the manufacturer's works that concern the sampling, packaging, and shipping of material ordered. The manufacturer shall afford the inspector all reasonable facilities, without charge, to satisfy him that the material is being furnished in accordance with this specification.

7.2 If the purchaser so elects, the material may be sampled by him at the destination, in which case at least 10 % of the shipment shall be sampled.

8. Rejection

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

9. Packaging

9.1 Ferrotitanium shall be packaged in sound containers in such manner that none of the metal is lost in shipment.