



Designation: A 701 – 96 (Reapproved 2000)

Standard Specification for Ferromanganese-Silicon¹

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1. Scope

1.1 This specification covers a manganese-silicon alloy designated as ferromanganese-silicon.

2. Referenced Documents

2.1 *ASTM Standards:*

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 Orders for material under 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 Size desired,
- 3.1.5 Requirement for packaging, and
- 3.1.6 Reports requested with shipment.

3.2 The basis of payment shall be per pound of alloy.

4. Chemical Requirements

4.1 The alloy shall conform to the chemical requirements as shown in Table 1.

4.2 The manufacturer shall furnish an analysis of each shipment as requested by the customer.

4.3 The values shown in Table 2 are expected maximums for the elements listed.

5. Size

5.1 The alloy is available in the sizes shown in Table 3.

5.2 The sizes listed in Table 3 are typical of the product as shipped from the seller's plant. Some deterioration of size can be expected in transit. This system is based on the relative friability as indicated in the Appendix.

TABLE 1 Recommended Specification for Ferromanganese-Silicon

Element	Composition, %
Manganese	63 to 66
Carbon, max	0.08
Silicon	28 to 32
Phosphorus, max	0.05

6. Sampling

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

6.2 Other methods of sampling may be used if mutually agreed upon between the purchaser and the seller. In case of discrepancies, Practices E 32 shall be used as the referee.

7. Chemical Analysis

7.1 Chemical procedures for analysis of ferroalloy components are not standardized. The chemical content procedures

TABLE 2 Recommended Supplementary Chemical Requirements for Ferromanganese-Silicon

Element	Composition, max, %
Arsenic	0.15
Tin	0.010
Lead	0.050
Chromium	0.50

TABLE 3 Ferromanganese-Silicon Sizes

Sizes	Tolerance
75 lb by 2 in. (34.0 kg by 50.8 mm)	
50 lb by 1 in. (22.7 kg by 25.4 mm)	
6 by 1/2 in. (152.4 mm by 12.70 mm)	
3 in. by down (76.2 mm by down)	10 % passing 1/4 in. (6.3 mm)
	screen, max
2 in. by down (50.8 mm by down)	10 % passing 1/4 in. (6.3 mm)
	screen, max

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 A01.18 on Castings.

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² *Annual Book of ASTM Standards*, Vol 14.02.

³ *Annual Book of ASTM Standards*, Vol 03.05.