



Designation: A482 – 05 (Reapproved 2010)

Standard Specification for Ferrochrome-Silicon¹

This standard is issued under the fixed designation A482; 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 several grades of ferrochrome-silicon.

2. Referenced Documents

2.1 *ASTM Standards*:²

A1025 Specification for Ferroalloys and Other Alloying Materials, General Requirements

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

E364 Test Methods for Chemical Analysis of Ferrochrome-Silicon³

3. General Conditions for Delivery

3.1 Materials furnished to this specification shall conform to the requirements of Specification **A1025**, including any supplementary requirements that are indicated in the purchase order. Failure to comply with the general requirements of Specification **A1025** constitutes nonconformance with this specification. In case of conflict between the requirements of this specification and Specification **A1025**, this specification shall prevail.

4. Chemical Composition

4.1 The various grades shall conform to the requirements as to chemical composition specified in **Tables 1 and 2**.

4.2 The manufacturer shall furnish an analysis of each shipment showing the percentage of each element specified in **Table 1**.

4.3 The values shown in **Table 2** are expected maximums. Upon request of the purchaser, the manufacturer shall furnish

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.

³ Withdrawn. The last approved version of this historical standard is referenced on www.astm.org.

TABLE 1 Chemical Requirements

Element	Composition, %	
	Grade A	Grade B
Chromium	34.0–38.0	38.0–42.0
Carbon, max	0.060	0.050
Silicon	38.0–42.0	41.0–45.0
Sulfur, max	0.030	0.030
Phosphorus, max	0.030	0.030

an analysis for any of these elements on a cumulative basis over a period mutually agreed upon between the manufacturer and the purchaser.

5. Size

5.1 The various grades are available in sizes as listed in **Table 3**.

5.2 The sizes listed in **Table 3** are typical as shipped from the manufacturer's plant. These alloys exhibit varying degrees of friability; therefore, some attrition may be expected in transit, storage, and handling. A quantitative test is not available for rating relative friability of ferroalloys. A code system

TABLE 2 Supplementary Chemical Requirements

Element	Composition, max, percent Ferrochrome-Silicon (Grades A and B)
Nitrogen	0.050
Manganese	0.75
Nickel	0.50
Vanadium	0.50
Copper	0.050
Molybdenum	0.050
Columbium	0.050
Tantalum	0.050
Cobalt	0.10
Aluminum	0.50
Titanium	0.50
Zirconium	0.050
Arsenic	0.005
Lead	0.005
Tin	0.005
Zinc	0.005
Boron	0.005
Antimony	0.005
Silver	0.005
Bismuth	0.005