



Standard Specification for Ferromolybdenum¹

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1. Scope

1.1 This specification covers two grades of ferromolybdenum.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

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](#)

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. 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 Requirements

4.1 The material shall conform to the requirements as to chemical composition specified in [Table 1](#). The manufacturer shall furnish an analysis of each shipment showing the percentage of each element specified.

5. Size

5.1 The grades are available in sizes as listed in [Table 2](#).

5.2 The sizes listed in [Table 2](#) 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.

6. Keywords

6.1 ferromolybdenum; molybdenum

**TABLE 1 Chemical Requirements (maximum unless otherwise indicated)**

Grade	A1	A2
Molybdenum, min	60.0	60.0
Carbon	0.10	0.10
Phosphorous	0.050	0.050
Sulfur	0.15	0.15
Silicon	1.0	1.0
Copper	1.0	0.20

TABLE 2 Ferromolybdenum Size Requirements

Product	Size Requirements	Tolerance ^A
Ferromolybdenum	2 in. and under	10 % max retained on 2-in. (50-mm) sieve
		10 % max passing ¾-in. (6.3-mm) sieve
	1½ in. and under	10 % max retained on 1½-in. (37.5-mm) sieve
		10 % max passing ¾-in. (6.3-mm) sieve
	¾ in. and under	10 % max retained on ¾-in. (19.0-mm) sieve
		10 % max passing No. 20 (850-µm) sieve
	4 mesh and under	10 % max retained on No. 4 (4.75-mm) sieve
		10 % max passing No. 80 (180-µm) sieve
	20 mesh and under	10 % max retained on No. 20 (850-µm) sieve
	80 mesh and under	10 % max retained on No. 80 (180-µm) sieve

^A Specification of sieves sizes used to define tolerances herein are as listed in Specification E11.

SUPPLEMENTARY REQUIREMENTS

The composition shall be further limited to the requirements of Table S1.1 in addition to those in Table 1. The manufacturer shall furnish an analysis of each shipment showing the percentage of each element specified.

TABLE S1.1 Supplementary Chemical Requirements

Element	Composition, max, %
	Ferromolybdenum
Lead	0.010
Tin	0.010



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