



Designation: ~~A 132—89 (Reapproved 2000)~~ 132 – 04

Standard Specification for Ferromolybdenum¹

This standard is issued under the fixed designation A 132; 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 ~~two~~ one grades of ~~ferromolybdenum (formerly Grade B)~~. ferromolybdenum.
- 1.2 The values stated in inch-pound units are to be regarded as the standard.

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

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*A Summary of Changes section appears at the end of this standard.

2. Referenced Documents

2.1 ASTM Standards:²

A 1025 Specification for Ferrous Alloys, General Requirements

E 11 Specification for Wire-Cloth Sieves for Testing Purposes

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications²

E 31 Methods for Chemical Analysis of Ferrous Alloys

E 32 Practices for Sampling Ferrous Alloys and Steel Additives for Determination of Chemical Composition³

3. Ordering Information

3.1 Orders General Conditions for Delivery

3.1.1 Materials furnished to this specification shall conform to the following information:

3.1.1.1 Quantity;

3.1.1.2 Name requirements of material;

3.1.1.3 ASTM designation and year of issue;

3.1.1.4 Grade;

3.1.1.5 Size; and

3.1.1.6 Requirements for packaging, analysis reports, etc., as appropriate.

3.2 Although ferromolybdenum is ordered by total net weight, Specification A 1025, including any supplementary requirements that are indicated in the customary basis purchase order. Failure to comply with the general requirements of payment is per pound Specification A 1025 constitutes nonconformance with this specification. In case of contained molybdenum, conflict between the requirements of this specification and Specification A 1025, this specification shall prevail.

4. Size

4.1 This grade is available in sizes as listed in Table 1.

4.2 The sizes listed in Table 1 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.

5. Sampling

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

5.2 Other methods of sampling mutually agreed upon by the manufacturer and the purchaser may be used; however, in case of discrepancy, Practices E 32 shall be used for referee.

6. Chemical Analysis

6.1 The chemical analysis of the material shall be made in accordance with the procedure for ferromolybdenum, as described in Methods E 31, or alternative methods which will yield equivalent results.

6.2 If alternative methods of analysis are used, in case of discrepancy, Methods E 31 shall be used for referee.

6.3 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 the purchaser.

7. Inspection

7.1 The manufacturer shall afford the inspector representing the purchaser all reasonable facilities, without charge, to satisfy him that the material is being furnished in accordance with this specification.

8. Rejection

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

9. Product Marking

9.1 When the shipment is made in bulk, it shall be accompanied by appropriate identification showing the material, the ASTM designation, the size, the lot number, and the name, brand, or trademark of the manufacturer.

9.2 When the shipment is made in containers, each shall be marked on the container or on a label or tag attached thereto. The marking shall show the material, the ASTM designation, the size, the lot number, gross, tare, or net weight, and the name, brand, or trademark of the manufacturer.

10. Packaging

10.1 The ferromolybdenum shall be packaged in sound containers, or shipped in bulk, in such a manner that none of the product is lost or contaminated in shipment.

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*, Vol 14.02, volume information, refer to the standard's Document Summary page on the ASTM website.

~~H. Chemical Requirements~~

~~11.1 This grade~~

~~4.1 The material shall conform to the requirements as to chemical composition specified in Table-2 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-3 2.~~

~~11.2 The manufacturer shall furnish an analysis of each shipment showing the elements specified~~

~~5.2 The sizes listed in Table-2.~~

~~11.3 The values shown in Table 3 2 are expected maximums. Upon request of typical as shipped from the purchaser, the manufacturer shall furnish an analysis for any manufacturer's plant. These alloys exhibit varying degrees of these elements on a cumulative basis over a period mutually agreed upon by the manufacturer friability; therefore, some attrition may be expected in transit, storage, and the purchaser.~~

12. handling.

6. Keywords

~~126.1 ferromolybdenum; molybdenum~~

TABLE 2 1 Chemical Requirements^A (maximum unless otherwise indicated)

E Element	Composition, % A1	A2
Grade	A1	A2
Ferromolybdenum^B		
Molybdenum Molybdenum, min	60.0 min	60.0
Carbon Carbon	0.10 max	0.10
Phosphorous Phosphorous, max	0.050	0.050
Sulfur Sulfur, max	0.15	0.15
Silicon Silicon, max	1.0	1.0
Copper Copper, max	1.0 ^D	0.20

^A For purposes of determining conformance with this specification, 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 Practice E 29.

^B Formerly Grade B.

^C For the purposes of determining the molybdenum content of any shipment, molybdenum shall be reported to the nearest 0.1 % applying the same rounding procedure as prescribed in Footnote A.

^D Copper content may be supplied to 0.20 %, max, when requested by the purchaser.

SUMMARY OF CHANGES

Committee A01 has identified the location of selected changes to this standard since the last version (A 132 – 89 (2000)) that may impact the use of this standard.

- (1) Specification A1025 added to 2.
- (2) Practice E29, Test Methods E31, and Practices E32 were removed from 2.
- (3) The section on Ordering Information was changed to General Conditions for Delivery.
- (4) Section 4 was revised and moved.
- (5) Section 5 was revised.
- (6) Sections on Sampling, Chemical Analysis, Rejection, Product Marking, and Packing were removed.
- (7) Supplementary Requirements section was added.
- (8) A new Table 1 was added.
- (9) The previous Table 1 was renumbered as Table 2.
- (10) The previous Table 2 was removed.
- (11) The previous Table 3 was renumbered as Table S1.1.

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