



Designation: ~~A481 – 05 (Reapproved 2010)~~ A481 – 05 (Reapproved 2015)

Standard Specification for Chromium Metal¹

This standard is issued under the fixed designation A481; 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 chromium metal.
- 1.2 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

- 2.1 *ASTM Standards*:²
 - [A1025 Specification for Ferrous Alloys and Other Alloying Materials, General Requirements](#)
 - [E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves](#)
 - [E363 Test Methods for Chemical Analysis of Chromium and Ferrochromium](#)

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 elements specified in [Table 1](#).
- 4.3 The values shown in [Table 2](#) are expected maximums. Upon request of the purchaser, the manufacturer shall furnish 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 has been developed, therefore, for this purpose, and a number rating each product type is shown in the last column of [Table 3](#). Definitions applicable to these code numbers are given in Specification [A1025](#).

6. Chemical Analysis

- 6.1 The chemical analysis of the material shall be made in accordance with the procedure for the ferroalloys as described in Test Methods [E363](#) or alternative methods, agreed upon by the purchaser and supplier, that will yield equivalent results.
- 6.2 If alternative methods of analysis are used, in case of discrepancy, Test Methods [E363](#) shall be used for referee.
- 6.3 Where no method is given in Test Methods [E363](#) for the analysis for a particular element, the analysis shall be made in accordance with a procedure agreed upon between the manufacturer and the purchaser.

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.