



Designation: A704/A704M – 19

Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement¹

This standard is issued under the fixed designation A704/A704M; 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 material in mat (or sheet) form fabricated from hot-rolled, plain steel bars or rods to be used for the reinforcement of concrete. Mats are made from two layers of bars or rods that are assembled by welding the intersections at right angles to each other.

1.2 This specification is applicable for orders in either inch-pound units (as A704) or in SI units [as A704M].

1.3 The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with this specification.

1.4 *This specification does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this specification to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

A615/A615M [Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement](#)

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 A01.05 on Steel Reinforcement.

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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.

A706/A706M [Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement](#)

A1064/A1064M [Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete](#)

2.2 AWS Standard:³

AWS D1.4/D1.4M [Structural Welding Code – Steel Reinforcing Bars](#)

2.3 U.S. Military Standard:⁴

MIL-STD-129 [Marking for Shipment and Storage](#)

2.4 U.S. Federal Standard:⁴

Fed. Std. No. 123 [Marking for Shipment \(Civil Agencies\)](#)

3. Ordering Information

3.1 Orders for welded steel plain bar or rod mats for concrete reinforcement under this specification shall contain the following information:

3.1.1 Quantity of mats,

3.1.2 Nominal diameter (size), length, and spacing of steel bars or rods in each direction,

3.1.3 Plain bar or rod,

3.1.4 Grade required (Grade 40 or 60 [280 or 420] as appropriate),

3.1.5 Type of steel (see Section 4.1); and

3.1.6 ASTM designation and year of issue.

NOTE 1—A typical ordering description is as follows: 1000 welded bar mats; Grade 40; to ASTM A704 – _____, 6 by 12 in.; ½ in. diameter by 120 in. longitudinal tip to tip, outer bars spaced 54 in.; ½ in. diameter by 60 in. transverse, outer bars spaced 108 in. [1000 welded bar mats; Grade 280; to ASTM A704M – _____, 150 by 300 mm; 12 mm diameter by 3000 mm longitudinal tip-to-tip, outer bars spaced 1350 mm; 12 mm diameter by 1500 mm transverse, outer bars spaced 2750 mm].

3.2 The purchaser shall have the option to specify additional requirements, including but not limited to, the following:

3.2.1 Requirements for inspection (10.1),

3.2.2 Packaging and special package marking requirements (Section 12), and

3.2.3 Other special requirements, if any.

³ Available from American Welding Society (AWS), 8669 NW 36 St., #130, Miami, FL 33166-6672, <http://www.aws.org>.

⁴ Available from DLA Document Services, Building 4/D, 700 Robbins Ave., Philadelphia, PA 19111-5094, <http://quicksearch.dla.mil>.

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