Designation: D3963/D3963M – 21

Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Steel Reinforcing Bars[1]

This standard is issued under the fixed designation D3963/D3963M; 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 the fabrication and jobsite requirements for deformed and plain steel reinforcing bars with protective epoxy coating applied in accordance with Specification A775/A775M.

1.2 This specification is applicable for orders in either SI units (as Specification D3963M) or inch-pound units (as Specification D3963).

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

1.4 *This standard 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 standard 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]

A775/A775M Specification for Epoxy-Coated Steel Reinforcing Bars

B117 Practice for Operating Salt Spray (Fog) Apparatus

D374/D374M Test Methods for Thickness of Solid Electrical Insulation

D2967 Test Method for Corner Coverage of Powder Coatings

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

G20 Test Method for Chemical Resistance of Pipeline Coatings

2.2 *Federal Highway Administration Report*

FHWA-RD-74-18 Nonmetallic Coatings for Concrete Reinforcing Bars[3]

3. Coating Repair Materials

3.1 The patching material shall be recommended by the powder coating manufacturer, inert in concrete, and feasible for repairs at the applicator, fabricator, or in the field. The patching material shall meet the requirements of Annex A2 of Specification A775/A775M prior to use.

3.2 The patching material manufacturer shall specify the method of metal surface preparation and the patching application procedures to be used in the field.

4. Handling and Identification

4.1 Coated bars shall be transported and handled with care. All systems for handling coated bars shall have padded contact areas. All bundling bands shall be padded, or suitable banding shall be used to prevent damage to the coating. All bundles of coated bars shall be lifted with a strong back, spreader bar, multiple supports, or a platform bridge to prevent bar-to-bar abrasion from sags in the bundles. The bars or bundles shall not be dropped or dragged.

4.2 The identification (including heat number, mill test results, date and type of coating system used, etc.) of all reinforcing bars shall be maintained throughout the coating and fabrication processes to the point of shipment.

[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.

[3] Available from National Technical Information Service (NTIS), 5301 Shawnee Rd., Alexandria, VA 22312, http://www.ntis.gov.

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