



Designation: A 934/A 934M – 03

Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars¹

This standard is issued under the fixed designation A 934/A 934M; 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 deformed and plain steel reinforcing bars which prior to surface preparation are prefabricated and then coated with a protective fusion-bonded epoxy coating by electrostatic spray or other suitable method.

1.2 Prefabricated steel reinforcing bars coated with fusion-bonded epoxy formulations in accordance with this specification are not intended to be bent or rebent.

NOTE 1—Experience has shown epoxy-coated prefabricated steel reinforcing bars have limited capability to be successfully field bent or rebent (see 9.3.1). If the construction project requires epoxy-coated steel reinforcing bars that must be able to sustain field bending or rebending, the use of coated bars conforming to Specification A 775/A 775M should be considered.

1.3 Organic coatings other than epoxy may be used provided they meet the requirements of this specification.

1.4 Requirements for epoxy coatings are contained in Annex A1.

1.5 Guidelines for application process and product test procedures of epoxy coatings for steel reinforcing bars are presented in Appendix X1.

1.6 Guidelines for construction practices at the job-site for coated steel reinforcing bars are presented in Appendix X2.

1.7 This specification is applicable for orders in either SI (metric) units (as Specification A 934M) or inch-pound units [as Specification A 934].

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

1.9 *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 and health practices and determine the applicability of regulatory limitations prior to use.*

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. Referenced Documents

2.1 ASTM Standards:

A 615/A 615M Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement²

A 706/A 706M Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement²

A 775/A 775M Specification for Epoxy-Coated Steel Reinforcing Bars²

A 944 Test Method for Comparing Bond Strength of Steel Reinforcing Bars to Concrete Using Beam-End Specimens²

A 996/A 996M Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement²

B 117 Practice for Operating Salt Spray (Fog) Testing Apparatus³

D 4060 Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser⁴

G 8 Test Methods for Cathodic Disbonding of Pipeline Coatings⁵

G 14 Test Method for Impact Resistance of Pipeline Coatings (Falling Weight Test)⁵

G 20 Test Method for Chemical Resistance of Pipeline Coatings⁵

G 42 Test Method for Cathodic Disbonding of Pipeline Coatings Subjected to Elevated Temperatures⁵

G 62 Test Methods for Holiday Detection in Pipeline Coatings⁵

2.2 NACE International Standard:⁶

RP 0287 Field Measurement of Surface Profile of Abrasive Blast Cleaned Steel Surfaces Using a Replica Tape

2.3 Society for Protective Coatings Specifications:⁷

SSPC-SP 10 Near-White Blast Cleaning

SSPC-VIS 1 Pictorial Surface Preparation Standards for Painting Steel Surfaces

SSPC-PA 2 Measurement of Dry Coating Thickness with Magnetic Gages

² Annual Book of ASTM Standards, Vol 01.04.

³ Annual Book of ASTM Standards, Vol 03.02.

⁴ Annual Book of ASTM Standards, Vol 06.01.

⁵ Annual Book of ASTM Standards, Vol 06.02.

⁶ Available from NACE International, 1440 South Creek, Houston, TX 77084.

⁷ Available from Society for Protective Coatings, 40 24th Street, Pittsburgh, PA 15222.

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