



Designation: D3794 – 18

Standard Guide for Testing Coil Coatings¹

This standard is issued under the fixed designation D3794; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This guide covers procedures for testing coil coatings. The test methods included are listed in Table 1. Where more than one test method is listed for the same characteristic, no attempt is made to indicate superiority of one method over another. Selection of test methods to be followed must be governed by the requirements in each individual case, together with agreement between the producer and user.

1.2 The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.

1.3 *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.*

1.4 *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

- B117 Practice for Operating Salt Spray (Fog) Apparatus
- B368 Test Method for Copper-Accelerated Acetic Acid-Salt Spray (Fog) Testing (CASS Test)
- C1371 Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emis-someters
- C1549 Test Method for Determination of Solar Reflectance

¹ This guide is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.53 on Coil Coated Metal.

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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.

Near Ambient Temperature Using a Portable Solar Reflec-tometer

- D522 Test Methods for Mandrel Bend Test of Attached Organic Coatings
- D523 Test Method for Specular Gloss
- D610 Practice for Evaluating Degree of Rusting on Painted Steel Surfaces
- D660 Test Method for Evaluating Degree of Checking of Exterior Paints
- D661 Test Method for Evaluating Degree of Cracking of Exterior Paints
- D714 Test Method for Evaluating Degree of Blistering of Paints
- D822 Practice for Filtered Open-Flame Carbon-Arc Expos-ures of Paint and Related Coatings
- D823 Practices for Producing Films of Uniform Thickness of Paint, Coatings and Related Products on Test Panels
- D870 Practice for Testing Water Resistance of Coatings Using Water Immersion
- D968 Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
- D1005 Test Method for Measurement of Dry-Film Thick-ness of Organic Coatings Using Micrometers
- D1014 Practice for Conducting Exterior Exposure Tests of Paints and Coatings on Metal Substrates
- D1193 Specification for Reagent Water
- D1200 Test Method for Viscosity by Ford Viscosity Cup
- D1210 Test Method for Fineness of Dispersion of Pigment-Vehicle Systems by Hegman-Type Gage
- D1212 Test Methods for Measurement of Wet Film Thick-ness of Organic Coatings
- D1308 Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
- D1474 Test Methods for Indentation Hardness of Organic Coatings
- D1475 Test Method for Density of Liquid Coatings, Inks, and Related Products
- D1654 Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
- D1729 Practice for Visual Appraisal of Colors and Color Differences of Diffusely-Illuminated Opaque Materials
- D1735 Practice for Testing Water Resistance of Coatings Using Water Fog Apparatus