



Standard Guide for Testing Industrial Water-Reducible Coatings¹

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1. Scope

1.1 This guide covers the selection and use of procedures for testing water-reducible coatings, both pigmented and clear, utilizing synthetic latices, synthetic resin emulsions, or water-reducible alkyds. The methods included are listed in **Table 1**. Where more than one standard is listed for the same characteristic, no attempt is made to indicate superiority of one standard over another. Selection of the standards to be followed must be governed by experience and the requirements in each individual case, together with agreement between producer and user.

1.2 This guide covers the testing of liquid coatings as applied by conventional spray, airless spray, electrostatic spray, dip, fancoat, flowcoat, roller coat, and curtain coat.

1.3 This guide includes procedures relating to proper and safe packaging, shipping and receiving, and storage and handling during use and application.

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

1.5 *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.*

2. Referenced Documents

2.1 ASTM Standards:²

- B 117** Practice for Operating Salt Spray (Fog) Apparatus
- B 287** Method of Acetic Acid-Salt Spray (Fog) Testing³
- D 16** Terminology for Paint, Related Coatings, Materials, and Applications
- D 56** Test Method for Flash Point by Tag Closed Cup Tester
- D 93** Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

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 D01.55 on Factory Applied Coatings on Preformed Products.

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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³ Withdrawn.

- D 185** Test Methods for Coarse Particles in Pigments, Pastes, and Paints
- D 215** Practice for the Chemical Analysis of White Linseed Oil Paints
- D 344** Test Method for Relative Hiding Power of Paints by the Visual Evaluation of Brushouts
- D 522** Test Method for Mandrel Bend Test of Attached Organic Coatings
- D 523** Test Method for Specular Gloss
- D 562** Test Method for Consistency of Paints Using the Stormer Viscometer
- D 609** Practice for Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products
- D 610** Test Method for Evaluating Degree of Rusting on Painted Steel Surfaces
- D 658** Test Method for Abrasion Resistance of Organic Coatings by the Air Blast Abrasive³
- D 659** Method for Evaluating Degree of Chalking of Exterior Paints³
- D 660** Test Method for Evaluating Degree of Checking of Exterior Paints
- D 661** Test Method for Evaluating Degree of Cracking of Exterior Paints
- D 662** Test Method for Evaluating Degree of Erosion of Exterior Paints
- D 714** Test Method for Evaluating Degree of Blistering of Paints
- D 772** Test Method for Evaluating Degree of Flaking (Scaling) of Exterior Paints
- D 822** Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings
- D 823** Practices for Producing Films of Uniform Thickness of Paint, Varnish, and Related Products on Test Panels
- D 869** Test Method for Evaluating Degree of Settling of Paint
- D 870** Practice for Testing Water Resistance of Coatings Using Water Immersion
- D 968** Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
- D 1005** Test Method for Measurement of Dry-Film Thickness of Organic Coatings Using Micrometers
- D 1014** Practice for Conducting Exterior Exposure Tests of Paints and Coatings on Metal Substrates