



Designation: D 4540 – 92

AMERICAN SOCIETY FOR TESTING AND MATERIALS

1916 Race St. Philadelphia, Pa 19103

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Standard Guide for Testing Interior Latex Semigloss and Gloss Paints¹

This standard is issued under the fixed designation D 4540; 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 guide covers the selection and use of procedures for testing latex semigloss or gloss paints intended for use on interior walls or trim. The test methods included are listed in Tables 1 and 2.

1.2 The latex semigloss and gloss paints covered by this guide are intended for application by brushing, rolling, spraying, or other means, on plaster, masonry surfaces, wood, wallboard, previously painted surfaces and other interior architectural surfaces.

1.3 *This standard does not purport to address all of the safety problems, 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:

- D 16 Terminology Relating to Paint, Varnish, Lacquer, and Related Products²
- D 185 Test Methods for Coarse Particles in Pigments, Pastes, and Paints³
- D 344 Test Method for Relative Hiding Power of Paints by the Visual Evaluation of Brushouts³
- D 522 Test Methods for Mandrel Bend Test of Attached Organic Coatings³
- D 523 Test Method for Specular Gloss³
- D 562 Test Method for Consistency of Paints Using the Stormer Viscometer³
- D 869 Test Method for Evaluating Degree of Settling of Paint³
- D 1210 Test Method for Fineness of Dispersion of Pigment-Vehicle Systems³
- D 1475 Test Method for Density of Paint, Varnish, Lacquer, and Related Products³
- D 1640 Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature³
- D 1729 Practice for Visual Evaluation of Color Differences of Opaque Materials⁴
- D 1736 Test Method for Efflorescence of Interior Wall Paints³
- D 1849 Test Method for Package Stability of Paint³

D 2196 Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational (Brookfield) Viscometer³

D 2243 Test Method for Freeze-Thaw Resistance of Water-Borne Paints³

D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates³

D 2369 Test Method for Volatile Content of Coatings³

D 2486 Test Method for Scrub Resistance of Interior Latex Flat Wall Paints³

D 2574 Test Method for Resistance of Emulsion Paints in the Container to Attack by Microorganisms³

D 2805 Test Method for Hiding Power of Paints by Reflectometry³

D 2831 Test Method for Evaluating the Ability of a Latex Paint to Resist Efflorescence from the Substrate³

D 3258 Test Method for Porosity of Paint Films³

D 3450 Test Method for Washability Properties of Interior Architectural Coatings³

D 3793 Test Method for Low-Temperature Coalescence of Latex Paint Films³

D 3925 Practice for Sampling Liquid Paints and Related Pigmented Coatings³

D 3928 Test Method for Evaluation of Gloss or Sheen Uniformity³

D 3960 Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings³

D 4062 Test Method for Leveling of Paints by Draw-Down Method³

D 4213 Test Method for Wet Abrasion Resistance of Interior Paints³

D 4287 Test Method for High-Shear Viscosity Using the ICI Cone/Plate Viscometer³

D 4400 Test Methods for Sag Resistance of Paints Using a Multinotch Applicator³

D 4707 Test Method for Measurement of Paint Spatter Resistance to Roller Application³

D 4958 Test Method for Comparison of the Brush Drag of Latex Paints³

E 70 Test Method for pH of Aqueous Solutions with the Glass Electrode⁵

E 105 Practice for Probability Sampling of Materials⁴

2.2 U.S. Federal Test Methods Standard No. 141:⁶

2112 Application by Roller

2131 Application of Sprayed Films

2141 Application of Brushed Films

3011 Condition in Container

¹ This guide is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials and Applications and is the direct responsibility of Subcommittee D01.42 on Architectural Finishes.

Current edition approved May 15, 1992. Published July 1992. Originally published as D 4540 – 85. Last previous edition D 4540 – 91.

² Annual Book of ASTM Standards, Vols 06.01, 06.02, and 06.03.

³ Annual Book of ASTM Standards, Vol 06.01.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Annual Book of ASTM Standards, Vol 15.05.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.