



Standard Guide for Application and Evaluation of Brush and Roller Applied Paint Films¹

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1. Scope

1.1 This guide describes procedures for the application of brush or roller, or both, applied paint films to sealed wallboard for evaluating application properties.

1.2 Because both the application and panel evaluation are subjective, this guide should be used only for comparative testing within one laboratory using one operator for each set of applications, as the ratings assigned by different laboratories may not agree.

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

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

2. Referenced Documents

2.1 ASTM Standards:²

D1475 Test Method For Density of Liquid Coatings, Inks, and Related Products

D3924 Specification for Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials

D3925 Practice for Sampling Liquid Paints and Related Pigmented Coatings

D4707 Test Method for Measuring Paint Spatter Resistance During Roller Application

D5068 Practice for Preparation of Paint Brushes for Evaluation

D5069 Practice for Preparation of Paint-Roller Covers for Evaluation of Architectural Coatings

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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.

D5301 Practice for Physical Characterization of Paint Brushes

D5913 Test Method for Evaluation of Cleanability of Paint Brushes

E1347 Test Method for Color and Color-Difference Measurement by Tristimulus Colorimetry

2.2 Other Document:

Pictorial Standards of Paint Roller Spatter, shown in the *Pictorial Standards of Coating Defects*³

3. Summary of Guide

3.1 The test paints are applied with either a brush or a roller at an agreed upon spreading rate onto sealed test panels using both one and two coat applications and after drying, the panels are evaluated for various application properties.

4. Significance and Use

4.1 Laboratory measurement of application properties of architectural coatings generally employ a blade-type applicators that lay down films of highly uniform thickness. Applicators, such as brushes and rollers, typically apply films that lack uniformity due to variations in rheology, film build, flow and leveling properties resulting in the practical hiding of most paints being less than that measured on films applied with a blade-type applicator. This guide provides an indication of the actual application properties of the paint, as applied by a contractor or consumer.

5. Apparatus

5.1 *Container*, to hold paint, for example, a quart can.

5.2 *Good Quality Paint Brush*, 50 to 100 mm (2 to 4 in.) in width with a chiseled tip.

NOTE 1—The applicator should be aware that a brush can be a mixture having several chemically different filaments or bristles, or both, in several cross sections, with different thickness and length. Use the same type and make of paint brush for all applications. See Practice **D5301** for guidance.

5.3 *Good Quality Paint Roller*, typically 75 to 225 mm (3 to 9 in.) in length.

NOTE 2—Rollers constructed from woven fabric with a short nap 4.8 to

³ Available from Federation of Societies for Coatings Technology (FSCT), 492 Norristown Rd., Blue Bell, PA 19422-2350, <http://www.coatingstech.org>.