



Designation: D 5913 – 96 (Reapproved 2003)

## Standard Test Method for Evaluation of Cleanability of Paint Brushes<sup>1</sup>

This standard is issued under the fixed designation D 5913; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method covers a laboratory procedure for the evaluation or comparison of the cleanability of paint brushes, or both, when used with latex paints.

1.2 This test method is applicable to paint brushes up to 100 mm (4 in.) in width and of similar head dimensions as described in Practice D 5301.

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:*

D 1475 Test Method for Density of Liquid Coatings, Inks, and Related Products<sup>2</sup>

D 3924 Specification for Standard Environment for Conditioning and Testing Paint, Varnish, Lacquer and Related Materials<sup>2</sup>

D 3925 Practice for Sampling Liquid Paints and Related Pigmented Coatings<sup>2</sup>

D 5068 Practice for Preparation of Paint Brushes for Evaluation<sup>3</sup>

D 5301 Practice for Physical Characterization of Paint Brushes<sup>3</sup>

### 3. Summary of Test Method

3.1 The test brushes are washed prior to painting to remove any residual finishes from the manufacturer, broken in, and then dipped into the test paint for a specified period, allowed to drain and the excess removed by brushing out on paper. After

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.61 on Paint Application Tools.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 06.01.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 06.02.

a specified drying period, the brushes are cleaned and evaluated for the presence of residual paint on the filaments.

### 4. Significance and Use

4.1 The final appearance of a paint brush after it has been used and cleaned is related to the ability of the brush to perform consistently upon repeated use. This test method offers a subjective visual criteria that provides a rank order of cleanability of the filaments of a brush after use.

### 5. Apparatus

5.1 *Test Brushes*, up to 100-mm (4-in.) sizes.

5.2 *Weight-per-Gallon Cup* or pycnometer.

5.3 *Balance*, capable of weighing to an accuracy of 0.1 g.

5.4 *Stopwatch*.

### 6. Materials

6.1 *Test Panels*, with a sealed surface, having 1000 cm<sup>2</sup> (1.076 ft<sup>2</sup>) of test area<sup>4</sup> for 50-mm (2-in.) brushes.

6.2 *Laminated Fiber Board*, (upson board) 610 by 305 mm (24 by 12 in.) with at least one smooth side for 75-mm (3-in.) and 100-mm (4-in.) size brushes.

6.3 *Latex-Base Primer*.<sup>5</sup>

6.4 *Specified Test Paint*.

6.5 *Abrasive Grit Soap*.<sup>6</sup>

6.6 *Kraft or Brown Wrapping Paper*, unsealed, 200 by 460 mm (8 by 18 in.).

NOTE 1—The choice of the color of the test paint to be used should be dependent on the color of the filaments in the brushes under evaluation. A light colored paint is preferable for dark filament-containing brushes and conversely, a dark colored paint is preferable for brushes containing light-colored filaments. Latex interior flat paints are preferred because they dry faster than gloss or semigloss paints.

### 7. Sampling and Conditioning

7.1 Sampling of test paint to be used in this test method shall be in accordance with Practice D 3925.

<sup>4</sup> Test charts such as Leneta Form 8H have been found suitable. They are available from the Leneta Company, 15 Whitney Road, Mahwah, NJ 07430.

<sup>5</sup> Similar to U.S. Federal Specification TT-P-650C Primer Coating. White has been found suitable for this purpose. Other latex primers may be adapted to meet the requirements of this test method.

<sup>6</sup> Lava soap has been found suitable for this purpose.