Designation: D 5068 – 04

Standard Practice for Preparation of Paint Brushes for Evaluation[1]

This standard is issued under the fixed designation D 5068; 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 practice describes the preparation of paint brushes for evaluation.

1.2 This practice is applicable to paint brushes 50 to 100 mm (2 to 4 in.) in width.

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 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]

D 3924 Specification for Standard Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials

D 5301 Practice for Physical Characterization of Paint Brushes

3. Summary of Practice

3.1 Using a paint chosen for the evaluation, the brush to be tested is repeatedly loaded with paint and brushed over a specified area in a specified application time.

4. Significance and Use

4.1 Until the paint brush is fully conditioned and wetted with paint, only part of the paint loaded onto the brush can be transferred to the surface being painted. By properly preparing the brush before use, the amount of paint delivered to the surface can be made more uniform and reflect real use.

5. Apparatus

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

5.2 *Test Brush*, 50 to 100 mm (2 to 4 in.) in width.

5.3 *Balance*, to weigh brush to the nearest 0.1 gram.

6. Materials

6.1 *Test Paint*.

6.2 *Brush-Out Panels*, or other typical panels to be used.[3]

6.3 *Masking Tape*, to secure the panel to a flat surface.

7. Procedure

7.1 All tests are to be conducted in an atmosphere having a temperature of 23 ± 2°C (73.5 ± 3.5°F) and a relative humidity of 50 ± 5 % (see Specification D 3924).

7.2 Record weight of the test brush before loading (W1) using the example format as a guide (see Table 1). Place brush out panel on scale and tare.

7.3 Dip the brush into the specified paint to one-half the length of the filament.

NOTE 1—It is very important to assure that the depth that the brush filaments are dipped into the paint is consistent from brushout to brushout. To aid in determining the depth to dip the filaments, a tongue depressor or other guide for the specified length can be taped to the brush ferrule.

7.4 Hold the brush at the specified depth in the paint for 10 s. Remove and hold the brush vertically for 30 s allowing any excess paint to drain back into the paint can.

7.5 Secure the brush-out panel with masking tape to a flat, smooth, horizontal surface.

7.6 After the drain period, immediately place brush on a tared brush-out panel and weigh. Record the brush weight loaded with paint (W2). Record the amount of paint picked up by the brush as A, where A = W2−W1. Apply paint to the specified initial area on the brush-out panel as indicated below:

Brush Width, mm (in.)	Initial Area, (cm^2)
50 and 62.5 (2 and 2 ½)	250
75 and 100 (3 and 4)	500

[1] This practice 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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[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] Any smooth type panel can be used. A Leneta 8H-BW Chart, available from The Leneta Co., 15 Whitney Road, Mahaw, N.J. 07430 has been used in round robin testing for this purpose.