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Standard Test Method for Fiber Shedding of Paint Roller Covers¹

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1. Scope

1.1 This test method describes a procedure for determining the amount of releasable fibers transferred from a paint roller cover to a surface being painted.

1.2 This test method is applicable to pile fabric paint roller covers.

1.3 Because both the application and panel evaluation are subjective, this test method should be used only for comparative testing within one facility using one operator for each set of applications, as the end result assigned by different facilities may not agree.

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

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. Some specific hazards statements are given in Section 7 on Hazards.*

2. Summary of Test Method

2.1 The paint roller cover that is to be evaluated is used to paint a section of sealed test paper. After the paint film has dried, the fibers are counted.

3. Significance and Use

3.1 fibers that are released during painting can lead to a finish that is aesthetically unacceptable.

4. Test Specimen

4.1 Three identical paint roller covers, 9 by 1.5 in. (228.6 by 38.1 mm) diameter core.

5. Apparatus

5.1 *Paint Roller Frame*—designed for the paint roller cover being tested.

5.2 *Paint Tray*—suitable for the paint roller cover being tested.

6. Materials

6.1 *Test Paint*—commercially available semi-gloss or gloss paint, identified as to type, product number, and color. Paint to be mixed to a uniform consistency. Results may vary when using different paint types.

6.2 *Sealed Test Paper*—to minimize absorption of test paint, which allows formation of paint film. Sections measuring 28 in. (711.2 mm) wide by 20 in. (508 mm) long and have a minimum 10-mil thickness with a basis weight of 50 lb/Mft² (250 g/m²).

6.3 *Tack Cloth*—commercially prepared cloth designed to remove dust and lint.

6.4 *Lighted Magnifying Glass*—with 5 \times magnification.

7. Procedure

7.1 All tests are to be conducted in controlled environment.

7.2 Prepare a clean, dry paint tray by wiping clean with a tack cloth to remove all foreign material. Wipe paper surface and surrounding area with tack cloth also.

7.3 Secure the two sections of sealed test paper to a flat vertical surface creating a 28 by 40 in. (711.2 by 1.016 mm) test surface.

7.4 Pour fresh paint into tray. Depth of paint to be the same as the pile height of the paint roller covers being tested. For example, 1/2 in. (12.7 mm) pile height cover would use 1/2 in. (12.7 mm) of paint in tray. *Do not use paint that has been exposed to fibers.*

7.5 Place the paint roller cover on the frame.

7.6 Load the paint roller cover by using twenty back and forth strokes, ten strokes total that go into the paint tray well to load the paint. Finish with four back and forth strokes, two total strokes that even out the paint on the ramp of the tray, not going into the paint well. The paint roller cover may require hand rotation to achieve a uniform loading.

7.7 Roll out the paint roller cover on the sealed test paper using the pattern shown in Fig. 1. Care should be taken to

¹ 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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