



# Standard Practice for Preparation of Paint-Roller Covers for Evaluation of Architectural Coatings<sup>1</sup>

This standard is issued under the fixed designation D5069/D5069M; 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 practice covers the preparation or breaking-in of paint-roller covers for evaluation.

1.2 This practice is applicable to paint-roller covers having nap lengths up to 13 mm [ $\frac{1}{2}$  in.]. Longer pile rollers can be adapted.

1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

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:*<sup>2</sup>

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

## 3. Summary of Practice

3.1 Using the paint chosen for the evaluation, the paint-roller cover to be tested is repeatedly and generously loaded with paint and painted out over the same area until it is saturated with paint, that is, the paint-roller cover cannot pick up any more paint, nor apply any more paint to the area being used for break-in.

<sup>1</sup> 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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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

## 4. Significance and Use

4.1 Until a paint-roller cover is saturated with paint, only part of the paint loaded onto the paint-roller cover can be transferred to a surface being painted. The remainder of the paint is absorbed into the fabric of the paint-roller cover. The amount of paint absorbed by a paint-roller cover is inversely proportional to the amount already present within the paint-roller cover. By saturating the paint-roller cover before testing, quantitative inaccuracies of the amount of paint delivered to a surface are eliminated.

4.1.1 Using a saturated paint-roller cover enables the user to apply paint at controllable spreading rates.

4.1.2 Using a saturated paint-roller cover affords reproducibility, when repeating a test.

## 5. Apparatus

5.1 *Paint Tray.*

5.2 *Paint Roller Frame*, of the same size as the paint-roller cover being prepared.

## 6. Materials

6.1 *Paint*, to be used in test.

6.2 *Primed or Smooth Surface*, to be used for the roller-cover break-in.

## 7. Procedure

7.1 All tests are to be conducted in an atmosphere having a temperature of  $23 \pm 2^\circ\text{C}$  [ $73.5 \pm 3.5^\circ\text{F}$ ] and a relative humidity of  $50 \pm 5\%$  (see Specification **D3924**).

7.2 Place the paint-roller cover on the frame.

7.3 Load the cover/frame with paint thoroughly working the cover back and forth (use roll off area and slowly work into the pool of paint) a minimum of 20 back and forth strokes until the cover is uniformly loaded. The cover may require hand rotation to achieve a uniform loading. See **Fig. 1**.

7.4 Roll out the roller cover on the surface being used for break-in in an upward and downward motion in no larger an area than 1.22 m [4 ft] high by the width of the roller cover.

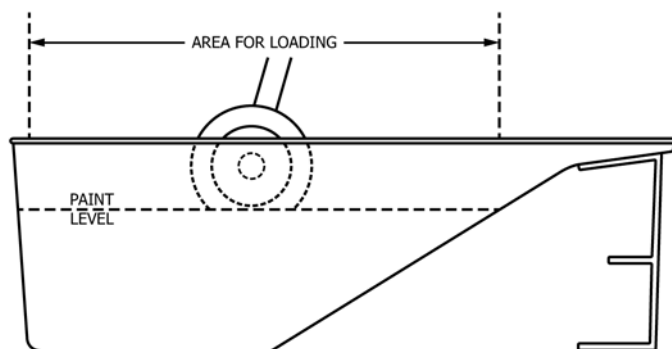


FIG. 1 Loading the Paint Roller

7.5 Reload the paint-roller cover with paint and roll out in the same manner over the same area. Do not increase the area except as necessary to control excess dripping of paint.

7.6 Repeat the above procedure as necessary until the following conditions are met:

7.6.1 Each loading of the roller cover results are within 10 g [.35274 oz] of each other.

7.6.2 There is so much paint on the surface being used that the fully loaded paint-roller cover cannot transfer any more paint to the surface.

7.6.3 When the above conditions are met, there will be so much paint on the roller cover that constant movement (turning over) is necessary to prevent dripping, and the panel will show profuse sagging of the paint. About six roller-cover loadings are usually necessary to achieve this.

7.7 The roller cover is now prepared for immediate testing.

## 8. Keywords

8.1 break-in; paint roller; paint-roller cover; roller; test preparation

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