



Standard Practice for Measuring Curl in Paint Brush Filling Material¹

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1. Scope

1.1 This practice describes the procedure for measuring curl in synthetic filament.

1.2 This practice is applicable to filament 2 to 5 in. (50.8 to 127 mm) in length.

1.3 This practice is applicable to tapered filament or level filament.

1.4 This practice is applicable to loose filling material and material removed from a brush.

1.5 The values given in inch-pound units are to be regarded as the standard as this is the dominant measurement system used in the paint brush industry. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.6 *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. Terminology

2.1 Definitions of Terms Specific to This Standard:

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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2.1.1 *paint brush filament, n*—a synthetic polymer extrusion used in brushing material.

2.1.2 *filament curl, n*—deviation from straight, along the length of a filament.

2.1.3 *butt-end, n*—the larger end of a tapered filament; either end of a level filament.

3. Significance and Use

3.1 It is important for the manufacturing and performance of a brush to have filaments with minimal curl.

4. Apparatus

4.1 Filament curl deviation chart. See Fig. 1.

5. Procedure

5.1 For Testing Synthetic Filaments:

5.1.1 Select filaments to be measured.

5.1.2 Allow filaments to acclimate to room temperature 70 to 75°F (21 to 24°C) at least two hours.

5.1.3 Place a filament on the filament curl deviation chart with butt-end at the x-reference point (see Fig. 1).

5.1.4 Record the degree of deviation from straight at the other end of the filament.

5.1.5 If multiple filaments of the same type and length are to be measured, repeat 5.1.3 and 5.1.4 for each of the remaining filaments and average the results.

6. Keywords

6.1 curl; filament