



Standard Test Method for Exterior Durability of Factory-Primed Field Finished Wood Products¹

This standard is issued under the fixed designation D 2830; 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 test method provides for the determination of the relative durability of factory-primed wood and wood-based substrates with representative finish coats when exposed to the weather.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *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 659 Test Method of Evaluating Degree of Chalking of Exterior Paints²
- D 660 Test Method for Evaluating Degree of Checking of Exterior Paints²
- D 661 Test Method for Evaluating Degree of Cracking of Exterior Paints²
- D 662 Test Method for Evaluating Degree of Erosion of Exterior Paints²
- D 714 Test Method for Evaluating Degree of Blistering of Paints²
- D 772 Test Method for Evaluating Degree of Flaking (Scaling) of Exterior Paints²
- D 1006 Practice for Conducting Exterior Exposure Tests of Paints on Wood²
- D 3274 Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation²
- D 3359 Test Methods for Measuring Adhesion by Tape Test²

2.2 US. Federal Standards:³

¹ This test method is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.52 on Factory-Coated Wood Products.

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² Annual Book of ASTM Standards, Vol 06.01.

³ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

TT-P-96b

TT-P-102

3. Summary of Test Method

3.1 This test method consists of the atmospheric exposure of at least three types of conventional exterior white house paints applied to panels of factory-primed wood or wood-base substrates that have been exposed to atmospheric weathering conditions for periods of 0, 3, and 6 months.

3.2 The finish coats are applied by brush.

3.3 An additional panel of original factory-primed substrate, without finish coat, is exposed for the duration of the test.

4. Significance and Use

4.1 This test method is useful for evaluating the weathering performance of factory-applied primers on wood or wood-based substrates overcoated with a field-applied topcoat.

4.2 This test method is useful for evaluating the weathering compatibility of commercial topcoats over factory-applied primers on wood or wood-based substrates.

5. Apparatus

5.1 A vertical (90° from horizontal) test fence constructed in accordance with requirements of Practice D 1006.

6. Materials

6.1 Exterior Finishes:

6.1.1 *Paint, Oil, Alkyd*, fume resistant, conforming to Federal Specification TT-P-102.

6.1.2 *Resin Latex Paint, Synthetic*, of the emulsion type designed for use on exterior wood surfaces (such as TT-P-96b).

6.1.3 *Flat Alkyd, Solvent-Thinned, Exterior*.

6.1.4 Any other type of exterior finish paint mutually agreed upon.

6.2 *Bristle Brush (Natural or Synthetic)*.

7. Procedure

7.1 The minimum length of panel is 910 mm (3 ft) with a minimum width of 150 mm (6 in.) of a particular preprimed substrate.

7.2 Mark off one third of the panel area (in a manner which will not damage the prime coat) and apply by brush to the right one third panel area a single coat of one of the white finishes at a spreading rate as recommended by the manufacturer or by