



Designation: D 2248 – 01a

Standard Practice for Detergent Resistance of Organic Finishes¹

This standard is issued under the fixed designation D 2248; 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 approval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers the determination of the resistance to failure, in an accelerated manner, of organic finishes when immersed in a detergent solution.

1.2 The values stated in SI units are to be regarded as the standard. The values 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 523 Test Method for Specular Gloss²
- D 609 Practice for Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products²
- D 610 Test Method for Evaluating Degree of Rusting on Painted Steel Surfaces³
- D 714 Test Method for Evaluating Degree of Blistering of Paints²
- D 823 Practices for Producing Films of Uniform Thickness of Paint, Varnish, and Related Products on Test Panels²
- D 1005 Test Methods for Measurement of Dry-Film Thickness of Organic Coatings Using Micrometers²
- D 1186 Test Methods for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base²
- D 1193 Specification for Reagent Water⁴
- D 1400 Test Method for Nondestructive Measurement of Dry Film Thickness of Nonconductive Coatings Applied to a Nonferrous Metal Base²
- D 1474 Test Methods for Indentation Hardness of Organic Coatings²
- D 1654 Test Method for Evaluation of Painted or Coated

Specimens Subjected to Corrosive Environments²

- D 1730 Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting⁵
- D 2092 Guide for Treatment of Zinc-Coated (Galvanized) Steel Surfaces for Painting³
- D 2197 Test Methods for Adhesion of Organic Coatings by Scrape Adhesion²
- D 2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates²
- D 3359 Test Methods for Measuring Adhesion by Tape Test²

3. Significance and Use

3.1 Any effects such as color change, blistering, loss of adhesion, softening, or embrittlement are observed and noted.

4. Apparatus

4.1 *Container*—A corrosion-resistant container equipped with the means to control the solution temperature within the range specified and to control the liquid level at ± 5 mm ($\frac{3}{16}$ in.). Agitation may be required to maintain temperature uniformity.

4.2 *Cover*—The container shall be provided with a cover to retard evaporation and to contain the test specimens completely.

5. Test Specimens

5.1 Unless otherwise specified, the test specimens shall be 100 by 300 by 0.9 mm (4 by 12 in. by 20 gage) in size. The test specimen composition, surface preparation, and number of test specimens shall be agreed upon by the purchaser and the seller.

NOTE 1—Applicable test panel description and surface preparation methods are as follows:

Practices D 609, D 1730 and D 2092.

6. Coating of Test Specimens

6.1 The method of application, film thickness, curing, and conditioning of the test surface shall be agreed upon between the purchaser and the seller.

NOTE 2—Application and film thickness measurement methods are

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 D01.27 on Accelerated Testing.

Current edition approved May 10, 2001. Published July 2001. Originally published as D 2248 – 64 T. Last previous edition D 2248 – 01.

² Annual Book of ASTM Standards, Vol 06.01.

³ Annual Book of ASTM Standards, Vol 06.02.

⁴ Annual Book of ASTM Standards, Vol 11.01.

⁵ Annual Book of ASTM Standards, Vol 02.05.