



Standard Practice for Detergent Resistance of Organic Finishes¹

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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 *This standard does not purport to address all of the safety problems, 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 Test Methods 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 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 Painting⁴

D 2092 Practices for Preparation 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

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 $\pm 3/16$ in. (5 mm). 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 4 by 12 in. by 20 gage (100 by 300 by 0.9 mm) 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 given as follows:

Test Methods D 823, D 1005, D 1186, and D 1400.

6.2 The backs, cut edges, and those areas containing identification marks or in contact with the supports, shall be

¹ This practice is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.27 on Accelerated Testing.

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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 02.05.