



Designation: D6943 – 15 (Reapproved 2019)

Standard Practice for Immersion Testing of Industrial Protective Coatings and Linings¹

This standard is issued under the fixed designation D6943; 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 practice establishes procedures for the evaluation of the resistance of industrial protective coatings to immersion in chemicals.

1.2 Linings are a particular type of coating intended for protection of substrates from corrosion as a result of continuous or intermittent fluid immersion.

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

1.4 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

- C267** Test Methods for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacings and Polymer Concretes
- D16** Terminology for Paint, Related Coatings, Materials, and Applications
- D471** Test Method for Rubber Property—Effect of Liquids
- D523** Test Method for Specular Gloss
- D610** Practice for Evaluating Degree of Rusting on Painted Steel Surfaces

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 D01.46 on Industrial Protective Coatings.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

- D714** Test Method for Evaluating Degree of Blistering of Paints
- D785** Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials
- D1474** Test Methods for Indentation Hardness of Organic Coatings
- D1734** Practice for Making Cementitious Panels for Testing Coatings
- D2200** Practice for Use of Pictorial Surface Preparation Standards and Guides for Painting Steel Surfaces
- D2240** Test Method for Rubber Property—Durometer Hardness
- D2583** Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor
- D3359** Test Methods for Rating Adhesion by Tape Test
- D3363** Test Method for Film Hardness by Pencil Test
- D4138** Practices for Measurement of Dry Film Thickness of Protective Coating Systems by Destructive, Cross-Sectioning Means
- D4417** Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel
- D4538** Terminology Relating to Protective Coating and Lining Work for Power Generation Facilities
- D4541** Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
- D5139** Specification for Sample Preparation for Qualification Testing of Coatings to be Used in Nuclear Power Plants
- D5162** Practice for Discontinuity (Holiday) Testing of Nonconductive Protective Coating on Metallic Substrates
- D6132** Test Method for Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage
- D6577** Guide for Testing Industrial Protective Coatings
- D6677** Test Method for Evaluating Adhesion by Knife
- D7055** Practice for Preparation (by Abrasive Blast Cleaning) of Hot-Rolled Carbon Steel Panels for Testing of Coatings
- D7091** Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nonconductive Coatings Applied to Non-Ferrous Metals