



Designation: D6947/D6947M – 16 (Reapproved 2023)

Standard Specification for Liquid Applied Moisture Cured Polyurethane Coating Used in Spray Polyurethane Foam Roofing System¹

This standard is issued under the fixed designation D6947/D6947M; 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 specification covers a single component, moisture cured, elastomeric urethane polymer coating used as a protective coating for spray polyurethane foam roofing systems.

1.2 This specification does not provide guidance for application.

1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.4 The following precautionary caveat pertains only to the test method portions, Sections 5 and 6.

1.5 *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.*

1.6 *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

D16 Terminology for Paint, Related Coatings, Materials, and Applications

D412 Test Methods for Vulcanized Rubber and Thermoplas-

tic Elastomers—Tension

D471 Test Method for Rubber Property—Effect of Liquids

D522/D522M Test Methods for Mandrel Bend Test of Attached Organic Coatings

D562 Test Method for Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer

D624 Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers

D903 Test Method for Peel or Stripping Strength of Adhesive Bonds

D1079 Terminology Relating to Roofing and Waterproofing

D1644 Test Methods for Nonvolatile Content of Varnishes

D1653 Test Methods for Water Vapor Transmission of Organic Coating Films

D2196 Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational Viscometer

D2370 Test Method for Tensile Properties of Organic Coatings

D2697 Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings

D4798/D4798M Practice for Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Xenon-Arc Method)

E1953 Practice for Description of Thermal Analysis and Rheology Apparatus

G21 Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

3. Terminology

3.1 For definitions of terms specific to this standard, refer to Terminologies **D16** and **D1079**.

4. Materials and Manufacture

4.1 *Composition*—The product, as manufactured, shall be in liquid form for application to spray polyurethane foam (SPF) surfaces by brushing, rolling, or spraying. The product shall be composed of a solvent-borne moisture curing urethane elastomeric polymer, to which various pigments or other additives have been added to give the required physical properties.

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.09 on Liquid Applied Coatings for Roofing and Asphaltic Concrete Pavement.

Current edition approved Jan. 1, 2023. Published January 2023. Originally approved in 2006. Last previous edition approved in 2016 as D6947/D6947M – 16. DOI: 10.1520/D6947_D6947M-16R23.

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.