



Designation: C1848 – 17

Standard Practice for Installation of High-Pressure Spray Polyurethane Foam Insulation for the Building Enclosure¹

This standard is issued under the fixed designation C1848; 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 covers the installation of high-pressure spray polyurethane foam (SPF) as an insulation for building enclosure assemblies including: walls, ceilings, attics, floors, and crawl spaces. This practice does not apply to SPF used strictly as a component for an air barrier system or for SPF used in roofing applications.

1.2 Building design criteria and selection of SPF are beyond the scope of this practice.

1.3 The use of SPF insulation covered by this practice is typically regulated by building codes or other agencies that address fire performance. Where required the fire performance of the material shall be addressed through standard fire test methods established by the appropriate governing documents.

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

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

2. Referenced Documents

2.1 *ASTM Standards:*²

C168 Terminology Relating to Thermal Insulation

D4263 Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method

D4449 Test Method for Visual Evaluation of Gloss Differences Between Surfaces of Similar Appearance

D4541 Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

D5469 Guide for Application of New Spray Applied Polyurethane Foam and Coated Roofing Systems

D6226 Test Method for Open Cell Content of Rigid Cellular Plastics

D7425 Specification for Spray Polyurethane Foam Used for Roofing Applications

2.2 *European Standard:*³

EN 14315-2:2013 Thermal insulating products for buildings - In-situ formed sprayed rigid polyurethane (PUR) and polyisocyanurate (PIR) foam products - Part 2: Specification for the installed insulation products

2.3 *Society for Protective Coatings (SSPC):*⁴

SSPC SP 1 Society for Protective Coatings: Solvent Cleaning

SSPC SP 6 Society for Protective Coatings: Commercial Blast Cleaning

2.4 *Spray Polyurethane Foam Alliance (SPFA):*⁵

SPFA-119 Glossary of Terms

SPFA-137 Spray Polyurethane Equipment Guidelines

SPFA-143 Primers: Why, When and How to Use Them

SPFA-148 Spray Polyurethane Foam Insulation Installation Certificate

3. Terminology

3.1 Definitions are in accordance with Terminology **C168**.

3.2 *Definitions:*

3.2.1 Specific Definitions per SPFA-119:

3.2.2 *lift, n*—the sprayed polyurethane foam resulting from passes of foam in a specific area, as defined by its thickness and the area.

3.2.3 *pass, n*—the amount of coating or polyurethane foam applied by moving the gun from side to side and moving away from fresh material, delineated by its width, length, and thickness.

¹ This practice is under the jurisdiction of ASTM Committee **C16** on Thermal Insulation and is the direct responsibility of Subcommittee **C16.40** on Insulation Systems.

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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.

³ Available from European Committee for Standardization (CEN), Avenue Marnix 17, B-1000, Brussels, Belgium, <http://www.cen.eu>.

⁴ Available from Society for Protective Coatings (SSPC), 800 Trumbull Dr., Pittsburgh, PA 15205, <http://www.sspc.org>.

⁵ Available from Spray Polyurethane Foam Alliance (SPFA), 3927 Old Lee Hwy. #101B, Fairfax, VA 22030, <http://www.sprayfoam.org/>.