



**CERTIFICATION**



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## **Technical Evaluation Report**

**TER 1911-06**

Use of EasySeal.5™ Spray Foam  
Insulation as Interior finish and in Attics  
& Crawlspace

**SES Foam, LLC**

**Product:**

**EasySeal.5™ Spray Foam  
Insulation**

Issue Date:

January 30, 2020

Revision Date:

January 30, 2020

Subject to Renewal:

April 1, 2021

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## COMPANY

## INFORMATION:

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DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION

SECTION: 07 21 19 - Foamed-in-Place Insulation

SECTION: 07 27 36 - Sprayed Foam Air Barrier

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## 1 PRODUCT EVALUATED<sup>1</sup>

### 1.1 EasySeal.5™ Spray Foam Insulation

## 2 APPLICABLE CODES AND STANDARDS<sup>2,3</sup>

### 2.1 Codes

- 2.1.1 *IBC—12, 15, 18: International Building Code®*
- 2.1.2 *IRC—12, 15, 18: International Residential Code®*
- 2.1.3 *IECC— 12, 15, 18: International Energy Conservation Code*
- 2.1.4 *FBC— 14, 17: Florida Building Code*

### 2.2 Standards and Referenced Documents

- 2.2.1 *ASTM C518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*
- 2.2.2 *ASTM D1622: Standard Test Method for Apparent Density of Rigid Cellular Plastics*
- 2.2.3 *ASTM D1623: Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics*
- 2.2.4 *ASTM D2126: Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging*
- 2.2.5 *ASTM D6226: Standard Test Method for Open Cell Content of Rigid Cellular Plastics*

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<sup>1</sup> Building codes require data from valid [research reports](#) be obtained from [approved sources](#). Agencies who are accredited through ISO/IEC 17065 have met the [code requirements](#) for approval by the [building official](#). DrJ is an ISO/IEC 17065 [ANSI-Accredited Product Certification Body](#) – Accreditation #1131.

Through ANSI accreditation and the [IAF MLA](#), DrJ certification can be used to obtain product approval in any [jurisdiction](#) or country that has [IAF MLA Members & Signatories](#) to meet the [Purpose of the MLA](#) – “certified once, accepted everywhere.”

Building official approval of a licensed [registered design professional](#) (RDP) is performed by verifying the RDP and/or their business entity complies with all professional engineering laws of the relevant [jurisdiction](#). Therefore, the work of licensed RDPs is accepted by [building officials](#), except when plan (i.e. peer) review finds an error with respect to a specific section of the code. Where this TER is not approved, the [building official](#) responds in writing stating the reasons for [disapproval](#).

For more information on any of these topics or our mission, product evaluation policies, product approval process, and engineering law, visit [drjcertification.org](http://drjcertification.org) or call us at 608-310-6748.

<sup>2</sup> Unless otherwise noted, all references in this TER are from the 2018 version of the codes and the standards referenced therein (e.g., *ASCE 7, NDS, ASTM*). This material, design, or method of construction also complies with the 2000-2015 versions of the referenced codes and the standards referenced therein.

<sup>3</sup> All terms defined in the applicable building codes are italicized.

- 2.2.6 *ASTM E119: Standard for Fire Tests of Building Construction and Materials*
- 2.2.7 *ASTM E2178: Standard Test Method for Air Permeance of Building Materials*
- 2.2.8 *ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials*
- 2.2.9 *NFPA 286: Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth*
- 2.2.10 *UL 1715: Standard for Fire Test of Interior Finish Material*

### 3 PERFORMANCE EVALUATION

3.1 This TER assess EasySeal.5™ Spray Foam Insulation for the following:

- 3.1.1 Physical properties of the product in accordance with the standards listed in Section 2 of this TER.
  - 3.1.2 Air permeability in accordance with IRC Section N1102.4 and IECC Sections C402.5 and R402.4.
  - 3.1.3 Thermal performance (R-values) complying with the provisions of IRC Section N1102 and IECC Section C402.
  - 3.1.4 Surface burning characteristics complying with the provisions of IBC Section 2603.3 and IRC Section R316.3.
  - 3.1.5 Use in unvented attic spaces and crawlspaces without a thermal barrier or ignition barrier in accordance with IBC Section 2603.9 and IRC Sections R316.4 and R316.6, subject to conditions listed in Section 5.5 of this TER.
  - 3.1.6 Use in vented attic spaces and crawlspaces without the ignition barrier in accordance with IBC Section 2603.9 and IRC Sections R316.5.3, R316.5.4, and R316.6 when used with DC315 (International Fireproof Technologies Inc.), Flame Seal IB (Flame Seal Products Inc.), SES IB-FS (SES Foam LLC), or SES IB (SES Foam LLC).
  - 3.1.7 Use without a thermal barrier in accordance with IBC Section 2603.4 and IRC Section R316.4 when used with DC315 (International Fire Proof Technologies Inc.) or No Burn® Plus Tb (No Burn Inc.).
- 3.2 Any code compliance issues not specifically addressed in this section are outside the scope of this TER.
- 3.3 Any engineering evaluation conducted for this TER was performed on the dates provided in this TER and within DrJ's professional scope of work.

### 4 PRODUCT DESCRIPTION AND MATERIALS

- 4.1 EasySeal.5™ Spray Foam Insulation is a two component (Isocyanate or A-side and Resin or B-side), low-density open-cell SPF insulation product. EasySeal.5™ is a nominal 0.5 pounds per cubic foot (pcf) (8 kg/m<sup>3</sup>). The two product components are shown in Figure 1 and an image of the finished polyurethane is shown in Figure 2.



FIGURE 1. EASYSEAL.5™ ISOCYANATE (A-SIDE) AND RESIN (B-SIDE)



FIGURE 2. APPLICATION OF EASYSEAL.5™ SPRAY FOAM INSULATION IN AN UNVENTED ATTIC

- 4.2 DC315 Intumescent Coating: DC315 is a single-component, water-based, liquid-applied intumescent coating available in white, ice gray, dark gray and charcoal black. The coating is supplied in 5-gallon (19 L) pails and 55-gallon (208 L) drums, and has a shelf life of one (1) year when stored in factory-sealed containers at temperatures between 50° and 80°F (10 and 27°C).
- 4.3 No-Burn® Plus Thb Intumescent Coating: No-Burn® Plus ThB is a white, water-based latex liquid, which exhibits intumescent properties when exposed to elevated temperatures and flame, packaged in 5-gallon (18.9 L) pails and 55-gallon (208 L) drums. No-Burn® Plus ThB has a shelf life of 18 months when stored in unopened containers between 40°F and 90°F (4.4°C and 32.2°C). No-Burn® Plus ThB shall be mixed with a power mixing wand or equivalent at or between 500-1500 RPM for a mixing time of 5 minutes per container.
- 4.4 SES IB Intumescent Coating: SES IB is a water-based latex intumescent coating manufactured by SES Foam LLC and is supplied in 5-gallon (19 L) pails and 55-gallon (208 L) drums. When stored in factory-sealed containers at temperatures between 50°F (10°C) and 80°F (27°C), the coating has a shelf life of 12 months.
- 4.5 SES IB-FS Intumescent Coating: SES IB-FS intumescent coating is water-based and supplied in 5-gallon (18.9 L) containers weighing 62 pounds (28.1 kg) and 55-gallon (208 L) drums weighing 682 pounds (309 kg). The coating material has a maximum shelf life of 6 months when stored in factory sealed containers. The material shall be protected from freezing and is recommended to be stored at temperatures between 40° F and 80 °F (4.4 to 26.7 °C). SES IB-FS is dry-to-the-touch in 1 to 2 hours and shall be allowed to dry for 2 to 4 hours before recoating.

## 5 APPLICATIONS

### 5.1 General

5.1.1 EasySeal.5™ Spray Foam Insulation is used in the following applications:

5.1.1.1 Thermal insulation in buildings constructed in accordance with the *IBC*, *IRC*, or *IECC*.

5.1.1.2 Sealant for penetrations as part of an air barrier system.

5.1.2 When EasySeal.5™ Spray Foam Insulation is used in fire-rated construction, refer to manufacturer for specific details.

5.1.3 Where the application exceeds the limitations set forth herein, design shall be permitted in accordance with accepted engineering procedures, experience, and technical judgment.

### 5.2 Air Permeability

5.2.1 EasySeal.5™ Spray Foam Insulation has the air permeability characteristics shown below in Table 1, and therefore, is an air-impermeable insulation in accordance with [IRC Section R202](#) and [R806.5](#).

TABLE 1. EASYSEAL.5™ SPRAY FOAM INSULATION AIR BARRIER PROPERTIES

Product	Air Barrier Properties <sup>3</sup>
EasySeal.5™ Spray Foam Insulation <sup>1,2</sup>	< 0.02 (L/s*m <sup>2</sup> )
1. Sprayed to a minimum thickness of 3.5 inches. 2. Tested in accordance with ASTM E2178. 3. Liter per second per square meter when tested at a pressure differential of 75 Pa.	

5.3 Thermal Resistance

5.3.1 EasySeal.5™ Spray Foam Insulation has the thermal resistance as defined in Table 2.

TABLE 2. EASYSEAL.5™ SPRAY FOAM INSULATION THERMAL RESISTANCE VALUES

Product	Thickness (in)	Thermal Resistance (R-values) <sup>2,3</sup> (h*ft <sup>2</sup> *°F/Btu)	Thermal Resistance (U-values) (Btu/h*ft <sup>2</sup> *°F) per Inch thickness
EasySeal.5™ Spray Foam Insulation <sup>1</sup>	1	3.7	0.269
	2	7.5	0.264
	3	11	0.261
	3.5	13	0.260
	4	15	0.260
	5	19	0.260
	5.5	21	0.260
	6	23	0.260
	7	27	0.260
	7.5	29	0.260
	8	31	0.260
	9	35	0.260
	10	38	0.260
	11.5	44	0.260
	12	46	0.260
	13	50	0.260
14	54	0.260	
15	58	0.260	
16	62	0.260	

SI: 1 in = 25.4 mm

- One inch product tested after 90 day aging. Three and one half inch samples tested after 180 day aging.
- Tested at a mean temperature of 75°F and 50% relative humidity in accordance with ASTM C518.
- R-values are calculated from testing at 1 inch and 3.5 inches. Calculated values over 10 are rounded to the nearest integer

5.4 Surface Burning Characteristics

5.4.1 EasySeal.5™ Spray Foam Insulation is an ASTM E84 has the surface burning characteristics as shown in Table 3.

TABLE 3. FLAME SPREAD AND SMOKE DEVELOPED INDEXES OF EASYSEAL.5™ SPRAY FOAM INSULATION

Product	Flame Spread	Smoke Developed
EasySeal.5™ Spray Foam Insulation <sup>1</sup>	< 25	< 450
1. Tested in accordance with ASTM E84 at a nominal thickness of 4 inches.		

5.4.2 Insulation thicknesses in walls and ceilings are not limited when covered by a code prescribed thermal barrier or as described in sections 5.5, 5.6, and 5.7 of this TER.

5.5 Installation as an Interior Finish without a Code Prescribed Thermal Barrier

- 5.5.1 The code prescribed thermal barrier required by IBC Section 2603.4 or IRC Section R316.4 may be omitted when all of the following apply:
- 5.5.2 The thickness of the EasySeal.5™ Spray Foam Insulation shall not exceed the amounts listed in Table 4.
- 5.5.3 The EasySeal.5™ Spray Foam Insulation is coated with an intumescent coating as described in Table 4.
- 5.5.4 The coating shall be applied in accordance with the coating manufacturer's instructions and this report. Surfaces to be coated shall be dry, clean, and free of dirt, loose debris and other contaminants that could impact adhesion of the coating.

TABLE 4. ALTERNATIVE THERMAL BARRIERS

Insulation Product	Ceiling (horizontal) Thickness (maximum)	Wall (vertical) Thickness (maximum)	Intumescent Coating	Wet Film Thickness (minimum)	Coverage Rate (minimum)
EasySeal.5™ Spray Foam	14 inches	8.5 inches	DC315	14 mils	114 ft <sup>2</sup> /gal
	14 inches	10 inches	NoBurn® Plus Tb	14 mils	110 ft <sup>2</sup> /gal
SI: 1 in = 25.4 mm					
1. Tested in accordance with NFPA 286.					

5.6 Installation in Attics and Crawlspace with a Prescriptive Ignition Barrier

5.6.1 Where entry is made only for the service of utilities, EasySeal.5™ Spray Foam Insulation may be installed within attics or crawlspaces provided an ignition barrier is installed in accordance with IBC Section 2603.4.1.6, or IRC Sections R316.5.3 and R316.5.4, as applicable. The ignition barrier shall be installed in a manner such the foam plastic insulation is not exposed, and is consistent with the requirements of the type of construction required by the applicable code.

5.7 Installation in Attics and Crawlspace with an Alternative Ignition Barrier Assembly

- 5.7.1 When installation is in accordance with this section, the prescriptive ignition barrier specified by Section 2603.4.1.6 of the *IBC* or Section R316.5.3 and R316.5.4 of the *IRC* as applicable may be omitted. The following conditions apply:
  - 5.7.1.1 EasySeal.5™ Spray Foam Insulation may be spray-applied in attics to the underside of roof sheathing, roof rafters and vertical surfaces, and in crawl spaces to the underside of floors and vertical surfaces as described in this section.
  - 5.7.1.2 The thickness of the foam plastic insulation applied shall not exceed the thickness specified in Table 4.
  - 5.7.1.3 Entry is only to service utilities in the attic or crawl space and no storage is permitted.
  - 5.7.1.4 Attic or crawl space areas cannot be interconnected.



- 5.7.1.5 Air from the attic or crawl space cannot be circulated to other parts of the building.
- 5.7.1.6 Attic ventilation is provided in accordance with IBC Section 1202.2<sup>4</sup> or IRC section R806, as applicable.
- 5.7.1.7 Crawl-space ventilation is provided in accordance with IBC Section 1202.4<sup>5</sup> or IRC section R408.1, as applicable.
- 5.7.1.8 Combustion air is provided where required in accordance with IMC (International Mechanical Code®) Section 701.
- 5.7.1.9 The Spray Foam Insulation must be coated with an intumescent coating as described in Table 5.

TABLE 5. IGNITION BARRIER COVERAGE RATES

Insulation	Vertical (ceiling) Thickness (maximum)	Horizontal (wall) Thickness (maximum)	Intumescent Coating	Wet Film Thickness (minimum)	Coverage Rate (maximum)
EasySeal.5™ Spray Foam Insulation	12 inches	10 inches	DC315	4 mils	400 ft <sup>2</sup> /gal
	18 inches	12 inches	SES IB	4 mils	400 ft <sup>2</sup> /gal
	18 inches	12 inches	SES FS-IB	4 mils	400 ft <sup>2</sup> /gal

SI: 1 in = 25.4 mm

**5.8 Unvented Attic and Unvented Enclosed Rafter Assemblies**

- 5.8.1 SES Foam LLC has conducted end use configuration testing and analysis per IBC Section 2603.9<sup>6</sup> and IRC Section R316.6, to qualify the use of EasySeal.5™ insulation without a prescriptive ignition barrier or intumescent coating in unvented attics conforming with IBC Section 1202.3<sup>7</sup> or IRC Section R806 .5 (unvented attics were not addressed in the 2012 and earlier versions of the *IBC*).
- 5.8.2 When EasySeal.5™ insulation is applied in unvented attics conforming to IBC Section 1202.3<sup>8</sup> or IRC Section R806.5, the insulation may be applied to the underside of roof sheathing and/or rafters and to vertical surfaces to a minimum thickness of 3½ inches. Maximum thickness on the underside of roof sheathing or on vertical wall surfaces is 16 inches. The insulation may be left exposed to the attic without a prescriptive ignition barrier or an intumescent coating.
- 5.8.3 EasySeal.5™ Spray Foam Insulation may be installed in unvented attic assemblies and unvented enclosed rafter assemblies in accordance with IBC Section 1202.3<sup>9</sup> or Section R806.5 of the *IRC*. A vapor retarder shall be installed in direct contact with the insulation as required in IBC Section 1202.3<sup>10</sup> in Climate Zones 4M, 5, 6, 7 and 8.
- 5.8.4 The perimeter of penetrating items (annular space) does not require fire caulking. However, for penetrating items not needing full coverage, the perimeter (annular space) of the items must be covered with SPF at a minimum 3½" thickness.
- 5.8.5 Roof rafter or truss top chord member edges may be left exposed.
- 5.8.6 Wall stud edges may be left exposed.

<sup>4</sup> 2015 IBC Section 1203.2  
<sup>5</sup> 2015 IBC Section 1203.4  
<sup>6</sup> 2012 IBC Section 2603.10  
<sup>7</sup> 2015 IBC Section 1203.3  
<sup>8</sup> 2015 IBC Section 1203.3  
<sup>9</sup> 2015 IBC Section 1203.3  
<sup>10</sup> 2015 IBC Section 1203.3



- 5.8.7 Penetration through the attic floor or soffit not conveying air, such as can lights, electrical wiring, potable water, HVAC condensation lines, etc., do not need to be covered with foam or air sealed to the perimeter of the penetration (annular space).
- 5.8.8 Skylights penetrating through the attic floor, soffit, gable or roof deck where the tubular daylighting pathway is constructed of gypsum, steel or other noncombustible material (with melting temperature greater than steel) do not need full coverage of foam.
- 5.8.9 *For all attic volumes:*
  - 5.8.9.1 Rigid or flexible HVAC ducts penetrating only the attic floor including all plastic materials, rigid or semi-rigid/flexible aluminum, any ducts wrapped in fiberglass and steel or copper components may be left uncovered by foam.
  - 5.8.9.2 The attic space must be separated from the interior of the building by a 15-minute code prescribed thermal barrier such as 1/2" gypsum wall board.
- 5.8.10 Attic shall have access complying with IRC Section R807, horizontally placed in the floor, and shall feature one of the following:
  - 5.8.10.1 A downward-opening hatch,
  - 5.8.10.2 Pull down stair or,
  - 5.8.10.3 Access opening in accordance with IRC Section R807 using Rockfon® Pacific™ 201 Square Edge Ceiling Tile to cover the opening. The Rockfon® Pacific™ 201 ceiling tile shall have a maximum density of 8 pcf, a maximum binder content of 3% and shall be listed as a Class A product in accordance with ASTM E1264.

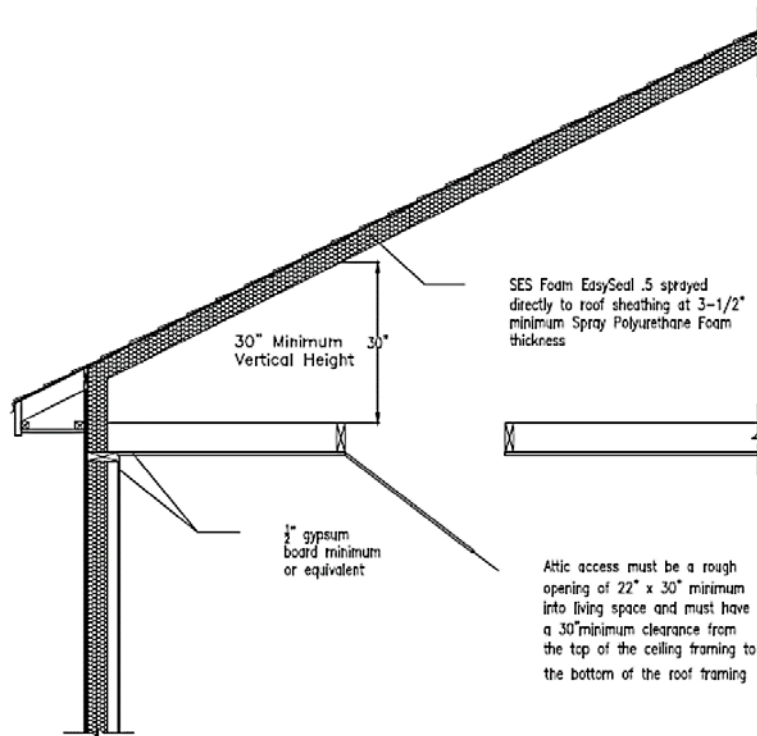


FIGURE 3. ATTIC ACCESS



#### 5.8.11 For attics up to 46,080 cu. Ft:

- 5.8.11.1 Any schedule 40 (minimum) ABS or PVC vent pipe does not need to be covered in SPF.
- 5.8.11.2 Rigid or flexible vent ducts/pipes that only penetrate the attic floor and/or soffit, including rigid or semi-rigid/flexible aluminum, any ducts wrapped in fiberglass, any ducts with higher melting/softening points than aluminum, and steel or copper do not need to be protected with SPF. Additionally, where exhaust fans with capacity of 60 cfm or less are installed, plastic materials thinner than schedule 40 do not need to be protected with SPF.
- 5.8.11.3 Rigid or flexible vent ducts/pipes that only penetrate the roof deck and/or gable, including rigid or semi-rigid/flexible aluminum, any ducts wrapped in fiberglass, any ducts with higher melting/softening points than aluminum, and steel or copper do not need to be protected with SPF. Additionally, where exhaust fans with capacity of 60 cfm or less AND the total area of penetrations from this section do not exceed 36 square inches, any plastic materials, any rigid or semi-rigid/flexible aluminum, any ducts wrapped in fiberglass, and vinyl or other plastic with lower melting/softening points than aluminum do not need to be protected by SPF.

#### 5.8.12 For Attics Greater than 46,080 cu. Ft:

- 5.8.12.1 Rigid or flexible vent ducts/pipes that only penetrate the attic floor and/or soffit, including, any materials with higher melting/softening points than aluminum, steel or copper do not need to be protected with SPF. Additionally, where exhaust fans with capacity of 60 cfm or less are installed, any plastic materials, rigid or semi-rigid/flexible aluminum, ducts wrapped in fiberglass, and vinyl or other plastic with lower melting/softening points than aluminum do not need to be protected by SPF.
- 5.8.12.2 Rigid or flexible vent ducts/pipes that only penetrate the roof deck and/or gable, including any materials with higher melting/softening points than aluminum, steel or copper do not need to be protected with SPF. Additionally, where exhaust fans with capacity of 60 cfm or less AND the total area of penetrations from this section do not exceed 36 square inches, any plastic materials, rigid or semi-rigid/flexible aluminum, ducts wrapped in fiberglass, and vinyl or other plastic with lower melting/softening points than aluminum do not need to be protected by SPF
- 5.8.12.3 Other items penetrating the roof deck or gable not specifically named above (other than steel or copper) need to be covered in SPF at a minimum 3½ inches.

## 6 INSTALLATION

- 6.1 Installation shall comply with the manufacturer's installation instructions and this TER. In the event of a conflict between the manufacturer's installation instructions and this TER, the more restrictive shall govern.
- 6.2 *Installation Procedure*
  - 6.2.1 The insulation shall be applied by certified and trained contractors of SES Foam LLC.
  - 6.2.2 A copy of manufacturer's installation instructions shall be available at all times.
  - 6.2.3 EasySeal.5™ Spray Foam Insulation shall be applied using two-component spray equipment and shall be applied using a 1:1 ratio of Component A (isocyanate) and Component B (resin).
  - 6.2.4 The substrate shall be dry and free of frost, ice, rust, oil, grease, dirt or any other substances that may prevent adhesion of the SPF to the substrate.
  - 6.2.5 EasySeal.5™ Spray Foam Insulation is intended for interior use only and are not to be used where they could come in contact with water. Provide protection from weather during and after installation.
  - 6.2.6 Where used as an air barrier in unventilated attics, the insulation shall be installed to a minimum thickness of 3.5 inches and shall be installed in accordance with the provisions of [IRC Section R806](#).
  - 6.2.7 EasySeal.5™ Spray Foam Insulation may be installed to the required thickness with one pass of the spray equipment. If installation using multiple passes is desired, no cure time is required between passes.
  - 6.2.8 Do not use EasySeal.5™ Spray Foam Insulation inside of electrical or junction boxes.

- 6.2.9 EasySeal.5™ Spray Foam Insulation shall be installed only when the air temperature is at or above 30°F (-1°C).
- 6.2.10 Insulation shall not be installed in areas where the service temperature is greater than 180°F (82°C).
- 6.2.11 For general SPF installation guidelines, see the [American Chemistry Council's Guidance on Best Practices for the Installation of Spray Polyurethane Foam](#).

## 7 TEST ENGINEERING SUBSTANTIATING DATA

- 7.1 Testing and data in accordance with NFPA 286 performed by RADCO Testing Services.
- 7.2 Testing and data in accordance with NFPA 286 with DC315 for interior finish applications performed by QAI.
- 7.3 Testing and data in accordance with UL 1715 with No-Burn® Plus ThB for interior finish applications performed by Intertek.
- 7.4 Testing and data in accordance with NFPA 286, modified for unventilated attics performed by Intertek.
- 7.5 Testing and data in accordance with NFPA 286, modified for unvented attic with uncoated penetrations performed by Intertek.
- 7.6 Engineering analysis for use of EasySeal.5™ Spray Foam Insulation in unvented attics performed by Priest & Associates.
- 7.7 Some information contained herein is the result of testing and/or data analysis by other sources which conform to IBC Section 1703 and relevant [professional engineering law](#). DrJ relies on accurate data from these sources to perform engineering analysis. DrJ has reviewed and found the data provided by other professional sources to be credible.
- 7.8 Where appropriate, DrJ's analysis is based on design values that have been codified into law through codes and standards (e.g., IBC, IRC, NDS®, and SDPWS). This includes review of code provisions and any related test data that aids in comparative analysis or provides support for equivalency to an intended end-use application. Where the accuracy of design values provided herein is reliant upon the published properties of commodity materials (e.g., lumber, steel, and concrete), DrJ relies upon the grade mark, stamp, and/or design values provided by raw material suppliers to be accurate and conforming to the mechanical properties defined in the relevant material standard.

## 8 FINDINGS

- 8.1 When used and installed in accordance with this TER and the manufacturer's installation instructions, the product(s) listed in Section 1.1 are approved for the following:
  - 8.1.1 Use as thermal insulation in buildings constructed in accordance with the IBC or IRC.
  - 8.1.2 Use in unvented attic spaces and crawlspaces without a thermal barrier or ignition barrier in accordance with [IBC Section 2603.9](#) and [IRC Sections R316.4](#) and [R316.6](#).
- 8.2 [IBC Section 104.11](#) ([IRC Section R104.11](#) and [IFC Section 104.9](#) are similar) states:

**104.11 Alternative materials, design and methods of construction and equipment.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design or method of construction shall be *approved* where the *building official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code...Where the alternative material, design or method of construction is not *approved*, the *building official* shall respond in writing, stating the reasons the alternative was not *approved*.

- 8.3 This product has been evaluated in the context of the codes listed in Section 2 and is compliant with all known state and local building codes. Where there are known variations in state or local codes applicable to this TER, they are listed here.
- 8.3.1 No known variations

## 9 CONDITIONS OF USE

- 9.1 EasySeal.5™ described in this TER comply with, or are suitable alternatives to, what is specified in the codes listed in Section 2, subject to the following conditions:
- 9.1.1 The manufacturer's installation instructions and this TER shall be available on the jobsite for inspection.
- 9.1.2 The SPF insulation shall be installed in accordance with the manufacturer's published installation instructions, this TER and the applicable code. If there is a conflict between the installation instructions and this TER, the more restrictive governs.
- 9.1.3 The SPF insulation shall be separated from the interior of the building by an approved 15-minute thermal barrier, except as noted in this TER.
- 9.1.4 When installed in unvented attics without a code-prescribed ignition barrier or thermal barrier, the installation shall meet the conditions outlined in Section 5.8.
- 9.1.5 The SPF insulation shall meet the minimum thicknesses and densities noted in this TER.
- 9.1.6 The SPF insulation shall be protected from the weather during and after application.
- 9.1.7 The SPF insulation shall be applied by licensed dealers and installers certified by SES Foam LLC.
- 9.1.8 Use of the SPF insulation in areas where the probability of termite infestation is "very heavy" shall be in accordance with IBC Section 2603.8 and IRC Section R318.4 as applicable.
- 9.1.9 Jobsite certification and labeling of the SPF insulation shall comply with IRC Section N1101.10.1 and N1101.10.1.1 and I/ECC Section C303.1.1 and C303.1.1.1.
- 9.1.10 A vapor retarder shall be installed in accordance with the applicable code.
- 9.1.11 The resin used to produce EasySeal.5™ is manufactured in Spring, Texas and St. Louis, Missouri under a quality control program with inspections in accordance with IBC Section 2603.2 and IRC Section R316.2.
- 9.2 Where required by the building official, also known as the authority having jurisdiction (AHJ) in which the project is to be constructed, this TER and the installation instructions shall be submitted at the time of permit application.
- 9.3 Any generally accepted engineering calculations needed to show compliance with this TER shall be submitted to the AHJ for review and approval.
- 9.4 At a minimum, this product shall be installed per Section 6 of this TER.
- 9.5 This product is manufactured under a third-party quality control program in accordance with IBC Section 104.4 and 110.4 and IRC Section R104.4 and R109.2.
- 9.6 The actual design, suitability, and use of this TER, for any particular building, is the responsibility of the owner or the owner's authorized agent. Therefore, the TER shall be reviewed for code compliance by the building official for acceptance.
- 9.7 The use of this TER is dependent on the manufacturer's in-plant QC, the ISO/IEC 17020 third-party quality assurance program and procedures, proper installation per the manufacturer's instructions, the building official's inspection, and any other code requirements that may apply to demonstrate and verify compliance with the applicable building code.

## 10 IDENTIFICATION

- 10.1 The product(s) listed in Section 1.1 are identified by a label on the board or packaging material bearing the manufacturer's name, product name, TER number, and other information to confirm code compliance.
- 10.2 Additional technical information can be found at [SESfoam.com](http://SESfoam.com).

## 11 REVIEW SCHEDULE

- 11.1 This TER is subject to periodic review and revision. For the most recent version of this TER, visit [drjcertification.org](http://drjcertification.org).
- 11.2 For information on the current status of this TER, contact [DrJ Certification](#).