



**HOLCIM SOLUTIONS AND PRODUCTS  
US, LLC**  
26 Century Boulevard  
Suite 205  
Nashville, Tennessee 37214

## ENVERGE® SUCRASEAL® SPRAY FOAM INSULATION

### CSI Section:

07 21 00 Thermal Insulation

### 1.0 RECOGNITION

Enverge® Sucraseal® low density, open cell, polyurethane spray foam insulation described in this report has been evaluated for use as thermal insulation and for use in Type V construction and exterior walls in Types I through IV construction. The physical properties, air permeance, thermal resistance, surface burning characteristics, fire propagation, and attic and crawl space installations were evaluated for compliance with the following codes and regulations:

- 2021, 2018, 2015, and 2012 International Building Code® (IBC)
- 2021, 2018, 2015, and 2012 International Residential Code® (IRC)
- 2021, 2018, 2015, and 2012 International Energy Conservation Code® (IECC)
- 2021 and 2018 International Green Construction Code® (IGCC) (Section 4.4.1)
- 2023 Florida Building Code, Building – attached supplement
- 2023 Florida Building Code, Residential – attached supplement
- 2023 Florida Building Code, Energy Conservation – attached supplement

### 2.0 LIMITATIONS

Use of Enverge® Sucraseal® spray foam insulation recognized in this report is subject to the following limitations:

**2.1** The insulation shall be installed in accordance with the manufacturer’s published installation instructions, this evaluation report, and the applicable code. If there are any conflicts between the manufacturer’s published installation instructions and this report, the more restrictive shall govern.

**2.2** In accordance with Sections 4.6.1 and 4.6.2 of this report, the insulation shall be separated from the interior of the building by a code-complying thermal barrier or ignition barrier as appropriate.

**2.3** The insulation shall not exceed the nominal density and thickness for the installation conditions described in this report.

**2.4** The insulation shall be protected from exposure to weather during application.

**2.5** The insulation shall be installed by professional spray polyurethane foam installers approved by Holcim Solutions and Products US or by an ISO 17024 certified body.

**2.6** Use of the insulation in areas of “very heavy” termite infestation probability shall be in accordance with IBC Section 2603.8, or IRC Section R318.4, as applicable.

**2.7** When required by the applicable code, a vapor retarder shall be installed.

**2.8** Labeling and jobsite certification of the insulation and coatings shall comply with the following code sections as applicable:

- IBC Section 2603.2
- IRC Section R316.2
- 2021, 2018, and 2015 IRC Section N1101.10.1.1
- 2012 IRC Section N1101.12.1.1
- IECC Sections C303.1.1.1 or R303.1.1.1

**2.9** Foam plastic used in plenums as interior finish or interior trim under the IBC shall comply with Section 2603.7.

**2.10** The product recognized in this report is produced by Holcim Solutions and Products US in Spring, Texas, and Waukesha, Wisconsin.

### 3.0 PRODUCT USE

Enverge® Sucraseal® spray foam insulation complies with IBC Section 2603, IRC Section R316, and IECC Sections C303, C402, R303, and R402. When installed in accordance with Section 4.0 of this report, the foam plastic insulation may be used in wall cavities, floor assemblies or ceiling assemblies, and/or in attics and crawl spaces as nonstructural thermal insulation material. Enverge® Sucraseal® spray foam insulation is used in Type V construction under the IBC and in one- and two-family dwellings under the IRC.

Enverge® Sucraseal® spray foam insulation may be used as air impermeable insulation when installed in accordance with Section 4.4 of this report.

Enverge® Sucraseal® spray-applied polyurethane foam plastic insulation may be used in Types I, II, III, or IV construction when installed in accordance with Section 4.7 of this report.

*The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with Section 104.2.3 of the 2024 IBC and Section 104.11 of previous editions. This document shall only be reproduced in its entirety.*

Copyright © 2024 by International Association of Plumbing and Mechanical Officials. All rights reserved. Printed in the United States. Ph: 1-877-4IESRPT • Fax: 909.472.4171  
web: www.uniform-es.org • 4755 East Philadelphia Street, Ontario, California 91761-2816 – USA





### 4.0 PRODUCT DESCRIPTION

**4.1 Properties:** Enverge® Sucraseal® spray foam insulation is an open cell, spray-applied polyurethane foam plastic insulation in accordance with Section 3.1.1 and Table 1 of AC377. The insulation has a nominal in-place density of 0.5 pcf (8 kg/m<sup>3</sup>). The two-component spray foam plastic is produced in the field by combining a polymeric isocyanate (A component) and a polymeric resin (B component).

The polymeric resin shall be stored in 55-gallon (208 L) drums at temperatures between 50°F and 80°F (10°C and 27°C). When Component B is stored in factory-sealed containers at the recommended temperatures, the maximum shelf life is six months.

**4.2 Thermal Resistance (R-Values):** Enverge® Sucraseal® spray foam insulation has thermal resistance (R-Value) at a mean temperature of 75°F (24°C) as shown in Table 1 of this report.

Thickness (inch)	R-Value (°F·ft <sup>2</sup> ·hr/Btu)
1	4.1
2	7.8
3	11
3.5	13
4	15
5	19
5.5	20
6	22
7	26
7.25	27
8	30
9	33
9.25	34
10	37
11.25	42
12	45
16	60

For SI: 1 inch = 25.4 mm, 1°F·ft<sup>2</sup>·h/Btu = 0.176 110 K·m<sup>2</sup>/W.

<sup>1</sup> R-Values are calculated based on tested K values at 1-inch and 3.5-inch thicknesses.

**4.3 Surface Burning Characteristics:** At a maximum thickness of 4 inches (102 mm) and a nominal density of 0.5 pcf (8.0 kg/m<sup>3</sup>), the Enverge® Sucraseal® spray foam insulation yields a flame spread index of 25 or less and smoke-developed index of 450 or less when tested in accordance with ASTM E84. Greater thicknesses, depending on the end use, are recognized when installed in accordance with this report.

**4.4 Air Permeability:** Enverge® Sucraseal® spray foam insulation is classified as air-impermeable insulation when tested in accordance with ASTM E283 at a minimum thickness of 3 inches (76 mm), in accordance with 2021 and

2018 IBC 1202.3, 2015 IBC Section 1203.3, and IRC Section R806.5.

**4.4.1 Compliance with the International Green Construction Code:** Enverge® Sucraseal® spray foam insulation meets the requirements of Section 701.3.1.1 of the 2021 and 2018 International Green Construction Code when tested in accordance with Section 4.4 of this report.

**4.5 Fire-Protective Coatings and Coverings:** Fire protective coatings, for use as part of alternative thermal barrier assemblies shall be in accordance with Tables 2 of this report, as applicable, and installed in accordance with Section 4.6 of this report.

**4.6 Installation:** Enverge® Sucraseal® spray foam insulation shall comply with one of the following requirements:

- IECC Sections C402.1 (prescriptive)
- IECC Section R402.1 (prescriptive)

The manufacturer’s published installation instructions for Enverge® Sucraseal® spray foam insulation and this report shall be available on the jobsite during installation. Where conflicts occur, the most restrictive governs.

Enverge® Sucraseal® spray foam insulation shall be spray-applied on the jobsite using equipment specified in the manufacturer’s published installation instructions. The insulation is applied in multiple passes at thicknesses shown in the installation instructions up to the maximum insulation thickness specified in this report. The maximum in-service temperature for all areas shall not exceed the maximum temperature stated in the manufacturer’s published installation instructions. The insulation shall be sprayed onto a substrate that is protected and clean from any debris or weather-related conditions during and after application and shall not be used in electrical outlets or junction boxes or in contact with rain, water, or soil.

#### 4.6.1 Thermal Barrier

**4.6.1.1 Application with a Prescriptive Thermal Barrier:** Enverge® Sucraseal® spray foam insulation, at any thickness, in ceiling cavities and in wall cavities shall be separated from the interior by an approved thermal barrier of minimum ½ inch thick (12.7 mm) gypsum wallboard or equivalent 15-minute thermal barrier. The thermal barrier shall comply with and be installed in accordance with Section 2603.4 of the IBC or Section R316.4 of the IRC, as applicable.

**4.6.1.2 Alternative Thermal Barrier Assemblies:** Enverge® Sucraseal® spray foam insulation may be installed without a prescriptive thermal barrier as defined in Section 4.6.1.1 of this report when installed in accordance with Table 2 of this report.

**4.6.2 Installation in Attics or Crawl Spaces:** Enverge® Sucraseal® spray foam insulation may be installed in attics or



crawl spaces when installed in accordance with this section (Section 4.6.2). The insulation may be installed in unvented attics and unvented enclosed rafter spaces for use as air-impermeable insulation described in Section 4.4 of this report.

When installed in attics or crawl spaces where entry is made only for the service of utilities, Enverge® Sucraseal® spray foam insulation may be installed in accordance with this section. Enverge® Sucraseal® spray foam insulation need not be surfaced with a thermal barrier; however, such attic and crawl space areas shall be separated from the interior of the building by an ignition barrier in accordance with Section 4. of this report.

#### 4.6.2.1 Installation Using a Prescriptive Ignition Barrier:

When installed within attics or crawl spaces where entry is made only for the service of utilities, Enverge® Sucraseal® spray foam insulation shall be covered with a prescriptive ignition barrier in accordance with IBC Section 2603.4.1.6 or IRC Sections R316.5.3 and R316.5.4, as applicable.

**Exception:** The prescriptive ignition barrier may be omitted when installed in accordance with Section 4.6.2.2 or Section 4.6.2.3 of this report.

#### 4.6.2.2 Installation Using an Alternative Ignition Barrier

**Assembly:** Enverge® Sucraseal® spray foam insulation may be installed in attics and crawl spaces using an alternative ignition barrier assembly provided:

- a. Entry is only to service utilities in the attic or crawl space and no storage is permitted.
- b. Attic or crawl space areas cannot be interconnected.
- c. Air from the attic or crawl space cannot be circulated to other parts of the building.
- d. Attic ventilation is provided as required by the 2021 and 2018 edition IBC Section 1202 or IRC Section R806 except where air-impermeable insulation is permitted in unvented attics and shall comply with the following code sections as applicable:

For Unvented Attics:

- 2021 and 2018 IBC Section 1202.3
- 2015 IBC Section 1203.3
- IRC Section R806.5

Crawl space ventilation is provided as required by the following code sections as applicable:

- 2021 and 2018 IBC Section 1202.4
- 2015 IBC Section 1203.4
- 2012 IBC Section 1203.3
- IRC Section R408.1

- e. The foam plastic insulation is limited to the maximum thickness and density tested.
- f. In accordance with IMC (International Mechanical Code®) Section 701, combustion air is provided.

#### 4.6.2.3 Installation Using an Alternative Ignition Barrier Assembly without Application of Fire-Protective Coatings:

Enverge® Sucraseal® spray foam insulation may be spray-applied in attics to the underside of roof sheathing or roof rafters up to a thickness of 12 inches (305 mm), and vertical surfaces up to a maximum thickness of 11.5 inches (292 mm); and may be spray-applied in crawl spaces to the underside of floors up to a maximum thickness of 12 inches (305 mm) and vertical surfaces up to a maximum of 11.5 inches (292 mm) as applicable.

#### 4.7 Application in Types I through IV Construction (IBC):

**4.7.1 General:** When Enverge® Sucraseal® spray foam insulation is used in exterior walls of Types I, II, III, or IV construction of any height, the insulation shall comply with IBC Section 2603.5 and Section 4.7 of this report.

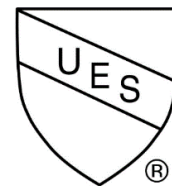
**4.7.2 Complying Exterior Wall Assemblies:** Wall assemblies that comply with Section 2603.5.5 of the IBC and this report that may be used in exterior walls of buildings of Type I, II, III, or IV construction of any height are described in Table 3 of this report. The potential heat of Enverge® Sucraseal® spray foam spray-applied polyurethane foam plastic insulation is 11,251 BTU/lb.

#### 5.0 IDENTIFICATION

The spray foam insulation is identified with the following:

- a. Manufacturer's name (Holcim Solutions and Products US)
- b. address and telephone number,
- c. the product trade name (Enverge® Sucraseal® spray foam insulation)
- d. use instructions
- e. density, flame-spread and smoke-development indices
- f. date of manufacture or batch/run number
- g. thermal resistance values
- h. the evaluation report number (ER-787)

The IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:



IAPMO UES ER-787

#### 6.0 SUBSTANTIATING DATA

**6.1** Data in accordance with the ICC-ES Acceptance Criteria for Spray-applied Foam Plastic Insulation, AC377, dated June 2023, including Appendix X.



6.2 Reports of room corner fire testing in accordance with NFPA 286.

6.3 Report of room corner fire testing in accordance with UL 1715.

6.4 Reports of air permeance testing in accordance with ASTM E283.

6.5 Reports of testing and evaluation of flame propagation in accordance with NFPA 285.

6.6 Test reports are from laboratories in conformance with ISO/IEC 17025.

### 7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Enverge® Sucraseal® spray foam insulation to assess its conformance to the codes and standards shown in Section 1.0 of this report and documents the product’s certification. Products are manufactured at locations noted in Section 2.10 of this report under a quality control program with periodic inspections under the supervision of IAPMO UES.

For additional information about this evaluation report please visit [www.uniform-es.org](http://www.uniform-es.org) or email us at [info@uniform-es.org](mailto:info@uniform-es.org)

**TABLE 2 - ALTERNATIVE THERMAL BARRIER ASSEMBLIES**

FIRE-PROTECTIVE COATING/COVERING <sup>1</sup>			MAXIMUM SPF THICKNESS (inch)	
TYPE	MINIMUM THICKNESS (mils)	THEORETICAL APPLICATION RATE	WALLS AND VERTICAL SURFACES	CEILING AND OVERHEAD SURFACES
DC315 <sup>2</sup>	14 wft 9 (dft)	115 sq. ft./gallon	9	14
Plus ThB <sup>3</sup>	14 wft (9 dft)	115 sq. ft./gallon	9	14
Fireshell F10E <sup>4</sup>	20 wft (14 dft)	80 sq. ft./gallon	11.5	11.5
60-60A <sup>4</sup>	12 mils WFT (8 mils DFT)	0.75 gal/100 ft <sup>2</sup>	6	10

For SI: 1 inch = 25.4 mm, 1 gallon = 3.785 L, 1 ft<sup>2</sup> = 0.0929 m<sup>2</sup>

<sup>1</sup> Fire-protective coatings and coverings shall be applied over all exposed SPF surfaces in accordance with the coating/covering manufacturer’s instructions and this report.

<sup>2</sup> International Fireproof Technology, Inc, recognized in [IAPMO UES ER-499](#). Tested to the requirements of NFPA 286.

<sup>3</sup>No Burn, recognized in IAPMO UES ER-305, tested to the requirements of UL-1715.

<sup>4</sup>ICP Construction, recognized in ESR-3997, tested to the requirements of NFPA 286.

<sup>5</sup> Flame Control Coatings, recognized in IAPMO ER-596 and tested to the requirements of NFPA 286.



**TABLE 3 – NFPA 285 COMPLYING EXTERIOR WALL ASSEMBLY – ENVERGE® SUCRASEAL® SPRAY FOAM APPLIED IN WALL CAVITY**

Wall Component	Material Description
<b>Base Wall System (BWS)</b> Use either 1, 2, or 3	<ol style="list-style-type: none"> <li>1) Concrete Walls</li> <li>2) Concrete Masonry Unit Walls</li> <li>3) Steel Stud Wall - 1 layer of 5/8-inch Type X gypsum wallboard installed on the interior side of minimum 3 5/8-inch deep No. 20 gauge steel studs spaced a maximum of 24 inches on center. Lateral bracing installed minimum every 4 feet vertically or as required.</li> </ol>
<b>Fire-Stopping in Stud Cavity at Floor Lines</b>	<ol style="list-style-type: none"> <li>1) 4-inch 4 pcf mineral wool (friction fit or installed with Z-Clips)</li> </ol>
<b>Resilient Channel – For use with BWS 3 above – Use either 1 or 2</b>	<ol style="list-style-type: none"> <li>1) None</li> <li>2) Double leg “hat” shaped steel resilient channel installed perpendicular to the wall studs (interior side only) and spaced a maximum of 24 inches on center between steel studs and Type X gypsum wallboard. Entire perimeter of window opening to be framed with resilient channel.</li> </ol>
<b>Perimeter Fire Barrier System</b>	Perimeter fire barrier system complying with Section 715.4 of the IBC shall be installed to fill the void between the edge of the concrete floor slab and the interior surface of the exterior wall assembly.
<b>Wall Cavity Insulation</b> Use Item 1, 2 or 3	<ol style="list-style-type: none"> <li>1) Full wall stud cavity depth or less of Enverge® Sucraseal® spray foam applied using exterior gypsum sheathing as the substrate and covering the width of the cavity and the inside of the steel wall stud framing flange.</li> </ol>
<b>Exterior Sheathing for BWS 3 above</b>	Minimum 5/8-inch-thick Type X exterior gypsum sheathing.
<b>Exterior Wall Covering – Use either 1, 2, or 3</b>	<ol style="list-style-type: none"> <li>1) Any non-combustible exterior wall covering material.</li> <li>2) Any non-combustible exterior wall covering system with a combustible water-resistive barrier that has successfully been tested in accordance with NFPA 285.</li> <li>3) Any combustible exterior wall covering system with or without a combustible water-resistive barrier that has successfully been tested in accordance with NFPA 285.</li> </ol>
<b>Flashing of window, door, and other exterior wall penetrations.</b>	As an option, flash around window, door and other exterior penetrations with limited amounts of maximum 12-inch wide acrylic, asphalt or butyl-based flashing tape or liquid applied membrane material.



## FLORIDA SUPPLEMENT

### HOLCIM SOLUTIONS AND PRODUCTS

US, LLC

26 Century Boulevard

Suite 205

Nashville, Tennessee 37214

### ENVERGE® SUCRASEAL® SPRAY FOAM INSULATION

#### CSI Section:

07 21 00 Thermal Insulation

#### 1.0 RECOGNITION

The Enverge® Sucraseal® 0.5 spray-applied foam plastic insulation as evaluated and represented in IAPMO UES Evaluation Report ER-787 and with changes as noted in this supplement is a satisfactory alternative for use in buildings built under the following codes (and regulations) including locations in the High-velocity Hurricane Zone:

- 2023 Florida Building Code, Building, (FBC, Building)
- 2023 Florida Building Code, Residential (FBC, Residential)
- 2023 Florida Building Code, Energy Conservation (FBC, Energy Conservation)

#### 2.0 LIMITATIONS

Use of Enverge® Sucraseal® spray-applied foam plastic insulation recognized in this report is subject to the following limitations:

**2.1** The clearance between the foam insulation installed above grade and exposed earth shall be in accordance with Section 1403.8 and 2603.8 of the FBC, Building or Section R318.7 and R318.8 of the FBC, Residential.

**2.2** Verification shall be provided that a quality assurance agency audits the manufacturers quality assurance program and audits the production quality of products in accordance with Section (5)(d) of Florida Rule 61G20-3.008. The quality assurance agency shall be approved by the Commission (or the building official when the report holder does not possess an approval by the Commission).

**2.3** This supplement expires concurrently with ER-787.

For additional information about this evaluation report please visit [www.uniform-es.org](http://www.uniform-es.org) or email us at [info@uniform-es.org](mailto:info@uniform-es.org)



## ENERGY STAR – SEAL AND INSULATE SUPPLEMENT

### HOLCIM SOLUTIONS AND PRODUCTS

US, LLC

26 Century Boulevard

Suite 205

Nashville, Tennessee 37214

### ENVERGE® SUCRASEAL® SPRAY FOAM INSULATION

#### CSI Section:

07 21 00 Thermal Insulation

#### 1.0 PURPOSE

Enverge® Sucraseal® Spray Foam Insulation has been certified for use as thermal *insulation* under the Seal and Insulate with ENERGY STAR® Program. The *insulation* has been evaluated for thermal resistance, surface burning characteristics (flame spread, and smoke-development), and complies with the following codes and regulations:

- EPA Definitions and Testing Requirements for Residential Insulation Version 1.0
- 2021 International Building Code® (IBC)
- 2021 International Residential Code® (IRC)
- 2021 International Energy Conservation Code® (IECC)

#### 2.0 DEFINITIONS

##### 2.1 General Definitions

**Insulation:** Any material mainly used to slow down heat flow. It may be mineral or organic, fibrous, cellular, or reflective (aluminum foil). It may be in rigid, semi-rigid, flexible, or loose-fill form.

**Residential Buildings:** Single family homes (attached or unattached), multifamily buildings with 4 units or fewer, or multifamily buildings (e.g., condominiums and apartments) with 3 stories or less in height above grade.

##### 2.2 Insulation Product Definitions

**Spray or Pour Foam Insulation:** A thermal insulating material that is sprayed or poured (as a gel or foamy liquid) into place and expands or sets into a cellular foam and cures at the point of installation through a chemical reaction. Foamed materials include, but are not limited to, polyurethane, polyisocyanurate, phenolic, and cementitious insulation.

**Board Insulation:** Semi-rigid or rigid insulation preformed into rectangular units having a degree of suppleness particularly related to their geometrical dimensions. Typical

materials include, but are not limited to, fiberglass, expanded polystyrene (EPS), extruded polystyrene (XPS), polyisocyanurate, and polyurethane. The product may or may not be faced.

#### 2.3 Insulation Performance Definitions

**R-value:** The inverse of the time rate of heat flow through a body from one of its bounding surfaces to the other surface for a unit temperature difference between the two surfaces, under steady state conditions, per unit area. For the purposes of this program, Imperial units will only be accepted [i.e., (h ft<sup>2</sup> °F)/Btu].

**Smoke-Development Index:** The characteristic of a material to emit smoke when exposed to flame or fire compared to red oak and inorganic cement.

**Flame-Spread Index:** The characteristic of a material to resist the spreading of flames when exposed to flame or fire compared to red oak and inorganic cement.

#### 3.0 PRODUCT USE

**3.1 General:** Enverge® Sucraseal® Spray Foam Insulation is a *Spray Foam Insulation for use in residential buildings*.

**3.2 Thermal Resistance:** *R-Values* are provided in Table 1 of this report. These R-Values are taken from testing in accordance with ASTM at a mean temperature of 75°F with a temperature differential of 50°F +/- 10°F.

TABLE 1

Thermal Resistance Enverge® Sucraseal® Spray Foam Insulation	
Thickness (inches)	R-Values (h · ft <sup>2</sup> · °F/Btu)
1	4.1
2	7.8
3	11
3.5	13
4	15
5	19
5.5	20
6	22
7	26
7.25	27
8	30
9	33
9.25	34
10	37
11.25	42
12	45
16	60

For SI: 1 inch = 25.4 mm, 1°F·ft<sup>2</sup>·h/Btu = 0.176 110 K·m<sup>2</sup>/W.

<sup>1</sup> R-Values are calculated based on tested K values at 1-inch and 3.5-inch thicknesses.



**3.3 Surface Burning Characteristics:** The surface burning characteristics of flame-spread index and smoke-development index are taken from testing in accordance with ASTM E84. At a maximum thickness of 4 inches (102 mm) and a nominal density of 0.5 pcf (8.0 kg/m<sup>3</sup>), the Enverge<sup>®</sup> Sucraseal<sup>®</sup> spray foam insulation yields a flame spread index of 25 or less and smoke-developed index of 450 or less in compliance with IBC Section 2603.3 and IRC Section R316.3.

### 3.4 Installation:

**3.4.1 Installation General:** Installation shall be in accordance with ER-787 and the manufacturer's published installation instructions. Enverge<sup>®</sup> Sucraseal<sup>®</sup> Spray Foam Insulation is mixed and applied on site exclusively by installers approved by Holcim Solutions and Products US.

**3.4.2 Personal Protective Equipment (PPE) and Ventilation.** Part I – General, Section F. Safety, of the installation instructions, provides the following information on personal protective equipment and ventilation requirements:

**“4. Personal protective equipment (PPE):**

**a. Skin:** Wear gloves, coveralls, apron and boots as necessary to prevent contact of liquid components or partially-cured SPF with skin. When handling liquid components, gloves should be made of nitrile, neoprene, butyl or PVC.

**b. Eyes:** Protect eyes while handling liquid components or spraying with safety goggles or safety goggles and a face shield. During spray application, eye protection may be provided by a full-face or hood respirator.

**c. Respiration:** Firms engaged in the application of Holcim Foam systems must have a written respiratory protection program for employees engaged in handling or applying Holcim Foam materials. Depending on the situation, respiratory protection may include dust masks, air-purifying respirators (APR), powered air-purifying respirators (PAPR), or supplied-air respirators (SAR).

**5. VENTILATION:** Provide ventilation and other engineering controls to exhaust vapors from work areas and to protect building occupants and other trades.”

**3.4.3 Occupancy Time After Installation.** Part III – Execution, Section G. Re-Entry of the installation instructions, provides the following guidance on Re-Entry:

Section G. Re-entry: “Enverge<sup>®</sup> Sucraseal<sup>®</sup> reacts and cures within seconds of application. Re-entry times will vary depending on factors including ventilation. Typically, when ventilation is continued for 24 hours following the conclusion of spray application and re-entry may occur at that time.”

### 3.4.4 Installation Drawings

Installation Drawings follow at the end of this supplement.

## 4.0 PRODUCT DESCRIPTION

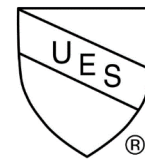
Enverge<sup>®</sup> Sucraseal<sup>®</sup> Spray Foam Insulation is a spray applied foam plastic insulation.

## 5.0 IDENTIFICATION

Enverge<sup>®</sup> Sucraseal<sup>®</sup> Spray Foam Insulation products are identified with the following:

- Manufacturer's name (Holcim Solutions and Products US)
- address and telephone number,
- the product trade name (Enverge<sup>®</sup> Sucraseal<sup>®</sup> spray foam insulation)
- use instructions
- density, flame-spread and smoke-development indices
- date of manufacture or batch/run number
- thermal resistance values
- the evaluation report number (ER-787)

The IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:



## IAPMO UES ER-787

## 6.0 SUBSTANTIATING DATA

**6.1** Manufacturer's descriptive literature and installation instructions.

**6.2** Reports of testing in accordance with the ICC-ES Acceptance Criteria for Spray-applied Foam Plastic Insulation, AC377, dated February 2020, including Appendix X.

**6.3** Reports of Thermal Transmission testing in accordance with ASTM C518.

**6.4** Reports of testing for Surface Burning Characteristics in accordance with ASTM E84.

**6.5** Test results were from a laboratory accredited to the applicable procedure as required by the Conditions and Criteria for Recognition of Insulation Certification Bodies for the ENERGY STAR Program.

**6.6** Enverge<sup>®</sup> Sucraseal<sup>®</sup> Foam Insulation Spray Installation Instructions reference numbers 011217 and 040313.

**6.7** All tests were conducted on insulation samples that were determined to be representative of the product line based on having identical chemical and physical properties. All

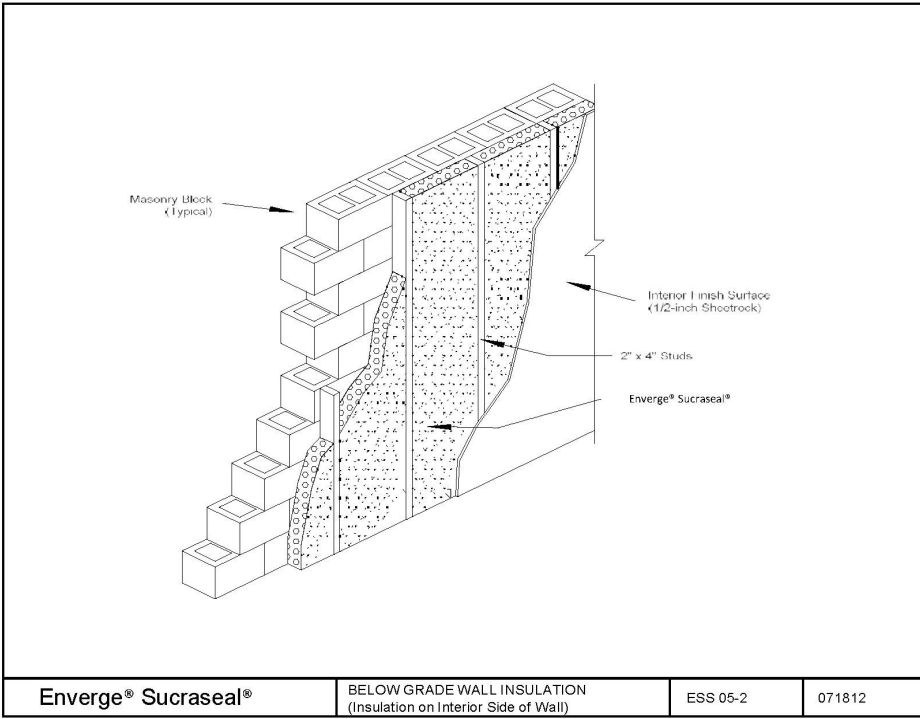
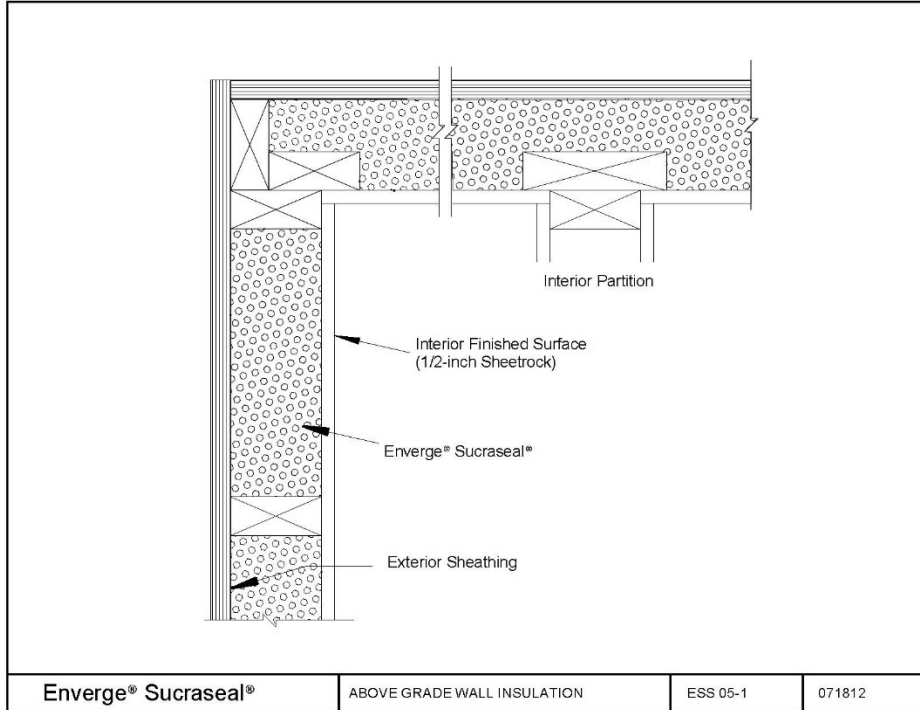


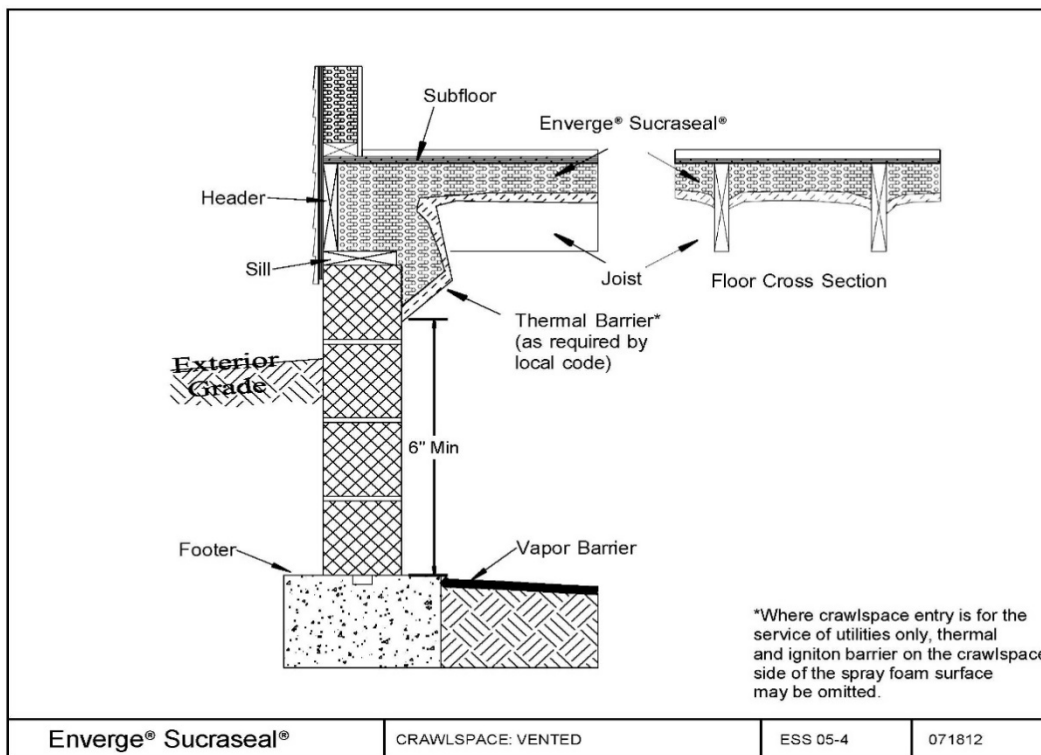
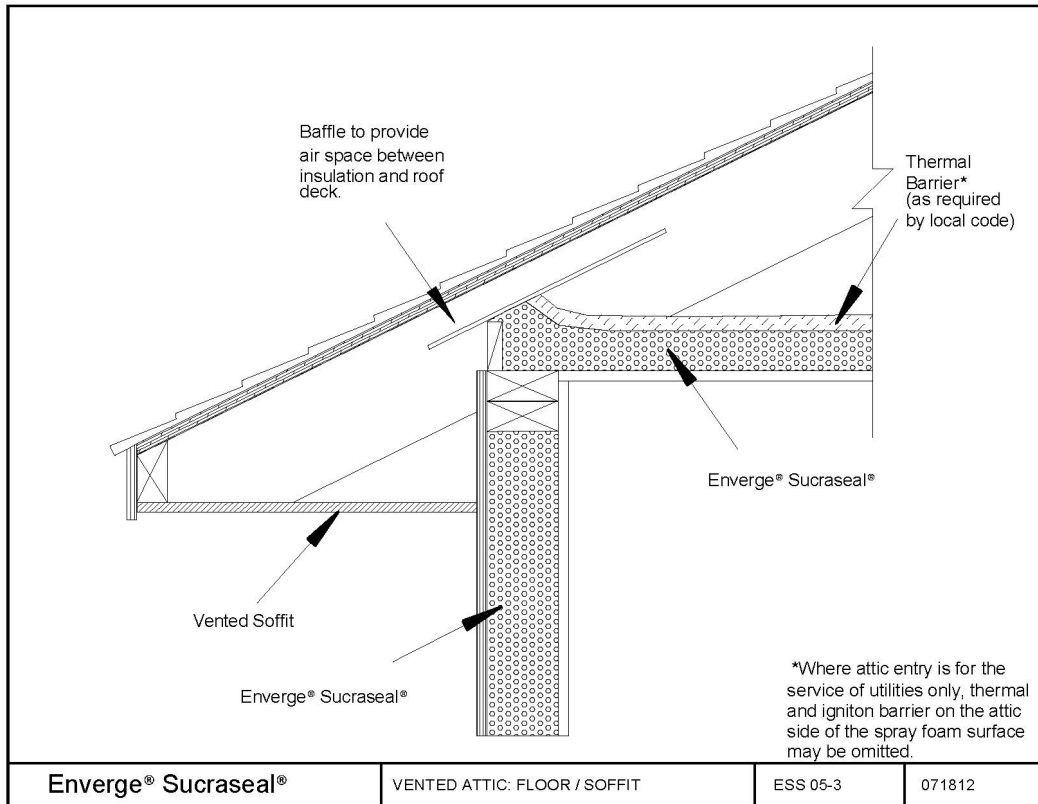


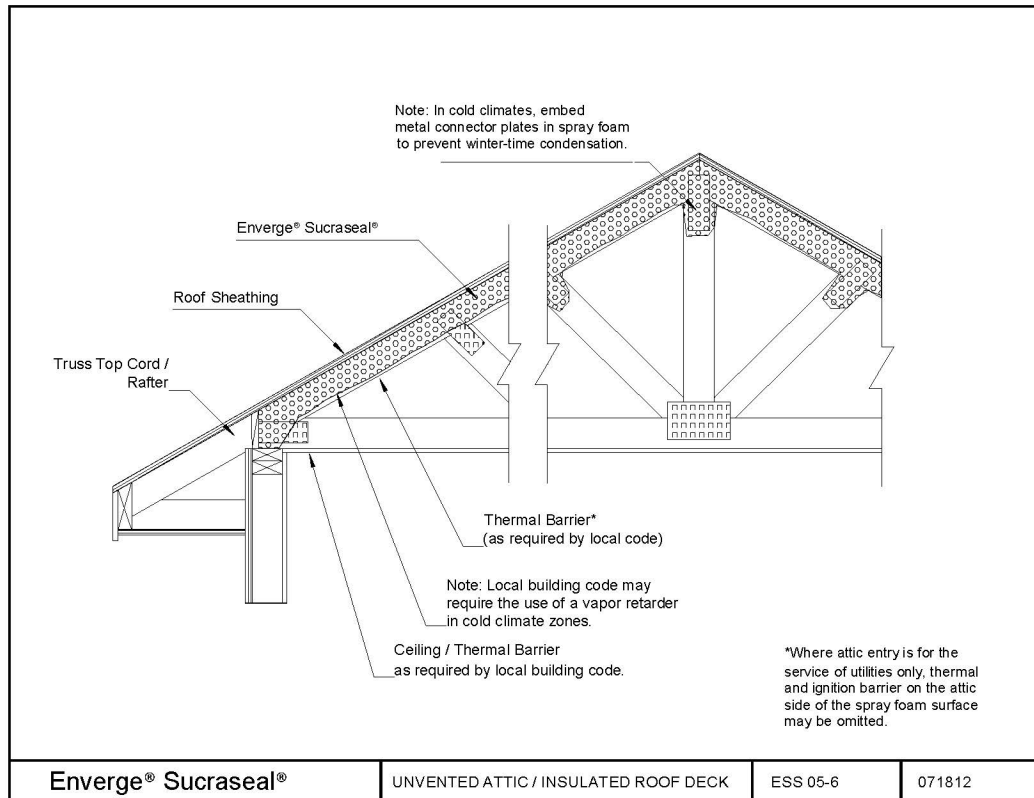
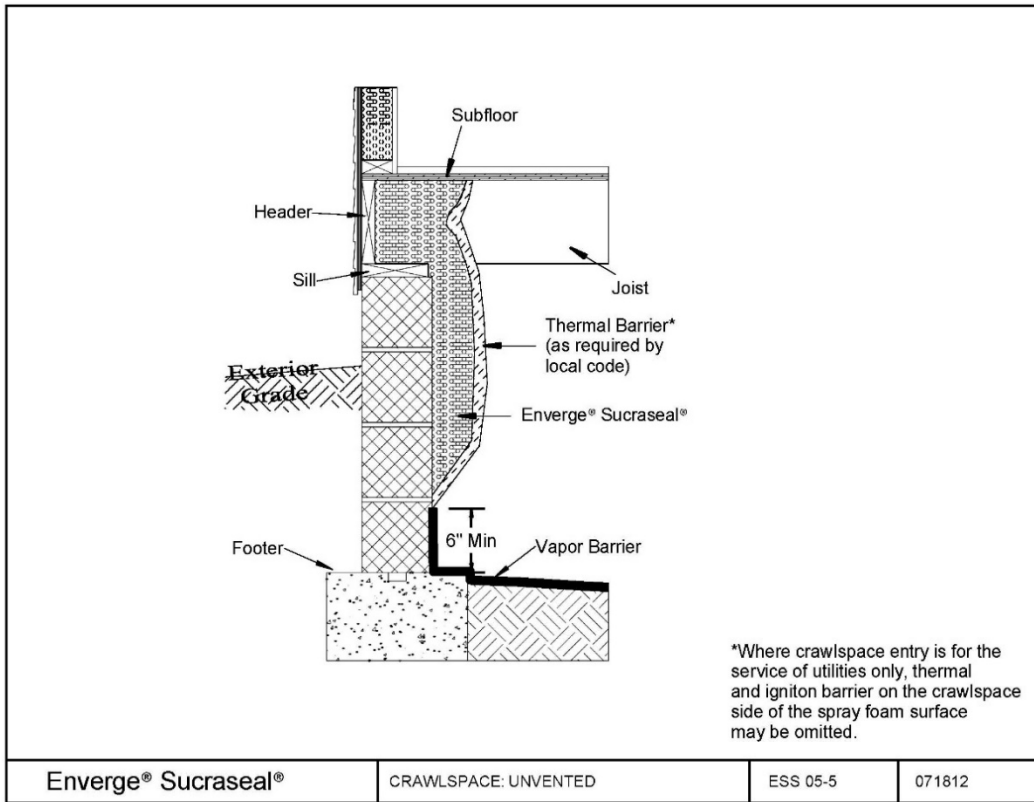
R-Values are based on testing conducted at representative thicknesses.

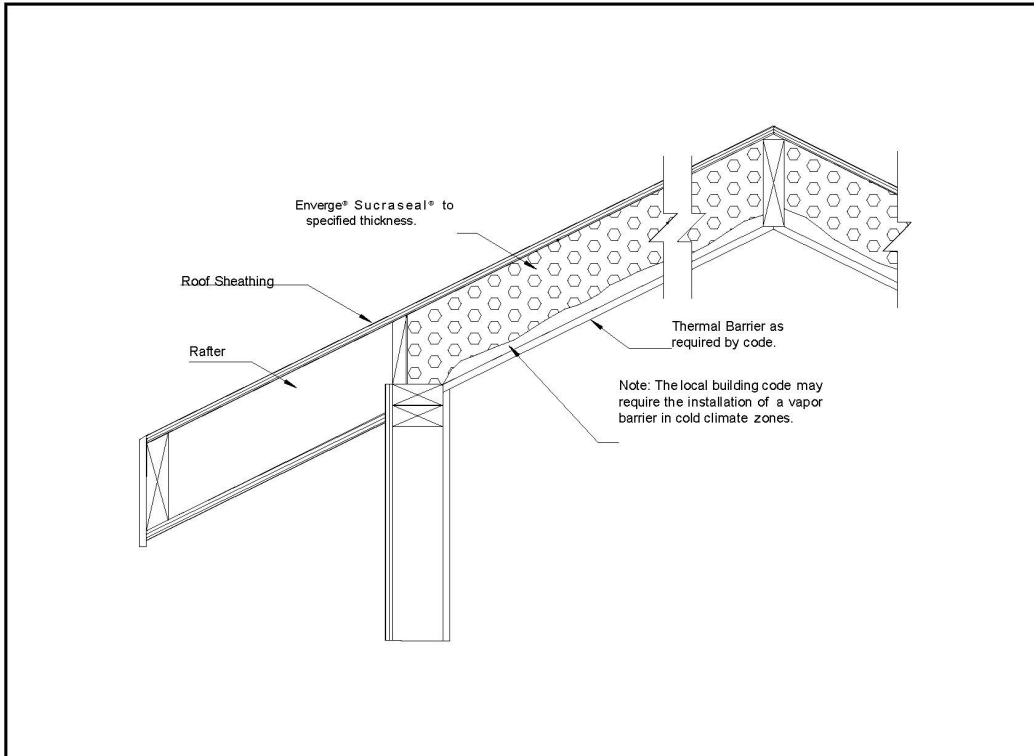
6.8 This supplement expires concurrently with ER-787.

For additional information about this evaluation report please visit [www.uniform-es.org](http://www.uniform-es.org) or email us at [info@uniform-es.org](mailto:info@uniform-es.org)

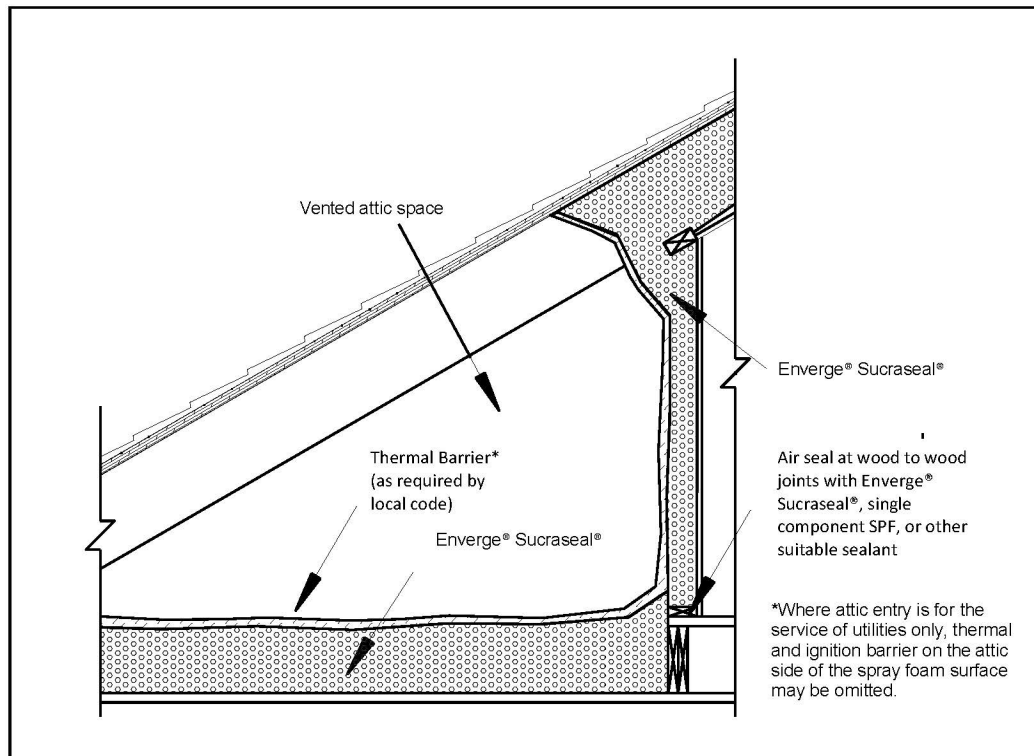








Enverge® Sucraseal®	CATHEDRAL CEILING	ESS 05-7	071912
---------------------	-------------------	----------	--------



Enverge® Sucraseal®	ATTIC KNEE WALL	ESS 05-8	040313
---------------------	-----------------	----------	--------