



Most Widely Accepted and Trusted

# ICC-ES Evaluation Report

# ESR-3210

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

Reissued 03/2017  
This report is subject to renewal 03/2018.

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**SECTION: 07 21 00—THERMAL INSULATION**

**REPORT HOLDER:**

**DEMILEC (USA) INC.**

**3315 EAST DIVISION STREET  
ARLINGTON, TEXAS 76011**

**EVALUATION SUBJECT:**

**HEATLOK SOY® 200 PLUS SPRAY-APPLIED POLYURETHANE FOAM INSULATION**



Look for the trusted marks of Conformity!

*“2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence”*



A Subsidiary of  **INTERNATIONAL CODE COUNCIL**

*ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.*



# ICC-ES Evaluation Report

**ESR-3210**

Reissued March 2017

Revised October 2017

*This report is subject to renewal March 2018.*

[www.icc-es.org](http://www.icc-es.org) | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**

**Section: 07 21 00—Thermal Insulation**

**REPORT HOLDER:**

**DEMILEC (USA) INC.**  
3315 EAST DIVISION STREET  
ARLINGTON, TEXAS 76011  
(817) 640-4900  
[www.demilecusa.com](http://www.demilecusa.com)  
[info@demilecusa.com](mailto:info@demilecusa.com)

**EVALUATION SUBJECT:**

**HEATLOK SOY® 200 PLUS SPRAY-APPLIED POLYURETHANE FOAM INSULATION**

## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following codes:

- 2015, 2012 and 2009 *International Building Code*® (IBC)
- 2015, 2012 and 2009 *International Residential Code*® (IRC)
- 2015, 2012 and 2009 *International Energy Conservation Code*® (IECC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)<sup>†</sup>

<sup>†</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

- Other Codes (see Section 8.0)

### Properties evaluated:

- Surface-burning characteristics
- Physical properties
- Thermal resistance
- Attic and crawl space installation
- Air permeability
- Water vapor transmission
- Water-resistive barrier
- Fire-resistance-rated construction
- Exterior walls in Types I through IV construction

### 1.2 Evaluation to the following green standard:

2008 ICC 700 *National Green Building Standard*™ (ICC 700-2008)

### Attributes verified:

See Section 3.1

## 2.0 USES

HEATLOK SOY® 200 PLUS spray-applied polyurethane foam plastic insulation is used as a nonstructural thermal insulating material in Types I, II, III, IV and V construction under the IBC and in dwellings under the IRC. The insulation is intended for use in wall cavities, floor/ceiling assemblies, or attics and crawl spaces when installed in accordance with Section 4.4. Under the IRC, the insulation may be used as air-impermeable insulation when installed in accordance with Section 3.4. When installed in accordance with Section 4.5, the insulation may be used as an alternative to the water-resistive barriers required in IBC Section 1404.2 and IRC Section R703.2. The insulation may be used in nonload-bearing, fire-resistance-rated walls when construction is in accordance with Section 4.6. The insulation also may be used in exterior walls of Type I, II, III or IV construction when used as described in Section 4.7.

## 3.0 DESCRIPTION

### 3.1 General:

HEATLOK SOY® 200 PLUS spray-applied foam insulation is rigid, medium-density, polyurethane foam plastic that is installed as a component of floor/ceiling and wall assemblies. The insulation is a two-component, spray-applied foam plastic with a nominal in-place density of 2.0 pcf. The insulation is produced in the field by combining a polymeric isocyanate (A-PDMI component) with a polymeric resin (HEATLOK SOY® 200 PLUS B-side component). The insulation liquid components are supplied in 55-gallon (208 L) drums and/or 250-gallon (946 L) totes and have a shelf life of one year when stored in factory-sealed containers at temperatures between 59°F (15°C) and 77°F (25°C).

The attribute of the insulation has been verified as conforming to the provision of ICC 700-2008 Section 703.2.1.1.1(c) as an air impermeable insulation. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

### 3.2 Surface-burning Characteristics:

The insulation, at a maximum thickness of 4 inches

(102 mm) and a nominal density of 2.0 pcf, has a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 (UL 723). There is no thickness limitation when the insulation is installed behind a code-prescribed 15-minute thermal barrier complying with, and installed in accordance with, the applicable code.

### 3.3 Thermal Resistance, *R*-values:

The insulation has thermal resistance (*R*-value) at a mean temperature of 75°F (24°C) as shown in Table 1.

### 3.4 Vapor Retarder:

The insulation has a vapor permeance of less than 1 perm [ $5.7 \times 10^{-11}$  kg/(Pa-s-m<sup>2</sup>)], in accordance with ASTM E96, when applied at a minimum thickness of 1.2 inches (30.5 mm), and qualifies as Class II vapor retarder under the IRC.

### 3.5 Air Permeability:

The insulation, at a minimum thickness of 1½ inches (38 mm), is considered air-impermeable insulation in accordance with 2015 IBC Section 1203.3 or 2012 IRC Section R806.5 (2009 IRC Section R806.4), based on testing in accordance with ASTM E283 and ASTM E2178.

### 3.6 Fire-protective Coating:

**3.6.1 BlazeLok™ TBX:** BlazeLok™ TBX (see [ESR-3997](#)), manufactured by TPR<sup>2</sup> Corporation, is a one-component, water-based intumescent coating. The coating is supplied in 5-gallon (19 L) pails and 55-gallon (208 L) drums and has a shelf life of 12 months when stored in factory-sealed containers at temperatures between 45°F (7°C) and 90°F (32°C). The coating is applied in one coat in accordance with the coating manufacturer's published installation instructions.

**3.6.2 DC 315 Coating:** DC 315 Coating (see [ESR-3702](#)), manufactured by International Fireproof Technology, Inc. / Paint to Protect Inc., is a water-based, intumescent coating supplied in 5-gallon (19 L) pails and 55-gallon (208 L) drums. The coating material has a shelf life of 12 months when stored in factory-sealed containers at temperatures between 50°F (10°C) and 80°F (27°C).

## 4.0 INSTALLATION

### 4.1 General:

HEATLOK SOY® 200 PLUS spray-applied polyurethane foam insulation must be installed in accordance with the manufacturer's published installation instructions, the applicable code and this report. A copy of the manufacturer's published installation instructions must be available at all times on the jobsite during installation.

### 4.2 Application:

The insulation is spray-applied on the jobsite using a volumetric positive displacement pump as identified in the Demilec application manual. The insulation must be applied when the ambient temperature is greater than 23°F (-5°C). The insulation must not be used in areas that have a maximum in-service temperature greater than 180°F (82°C). The foam plastic must not be used in electrical outlet or junction boxes or in contact with water, rain or soil. The foam plastic must not be sprayed onto a substrate that is wet, or covered with frost or ice, loose scales, rust, oil, or grease. The insulation must be protected from the weather during and after application, except as specified in Section 4.5. Where insulation is used as an air-impermeable insulation, such as in unvented attic assemblies under 2015 and 2012 IRC Section R806.5 (2009 IRC Section R806.4), the insulation must be

installed at a minimum thickness of 1½ inches (38 mm). The insulation must be applied in passes not exceeding 2 inches (51 mm) per pass and must be allowed to fully expand and cure for a minimum of 20 minutes prior to the application of the next additional pass.

### 4.3 Thermal Barrier:

**4.3.1 Application with a Prescriptive Thermal Barrier:** HEATLOK SOY® 200 PLUS insulation must be separated from the interior of the building by an approved thermal barrier of ½-inch-thick (12.7 mm) gypsum wallboard or an equivalent 15-minute thermal barrier complying with, and installed in accordance with, IBC Section 2603.4 or IRC Section R316.4, as applicable, except where insulation is in an attic or crawl space as described in Section 4.4. There is no thickness limitation when the insulation is installed behind a code-prescribed 15-minute thermal barrier.

**4.3.2 Application without a Prescriptive Thermal Barrier:** The prescriptive 15-minute thermal barrier or ignition barrier may be omitted when installation is in accordance with this section (Section 4.3.2) and Table 2. The insulation and intumescent coating may be spray-applied to the interior facing of walls, the underside of the roof sheathing or roof rafter, and in crawl spaces, and may be left exposed as an interior finish without a prescribed 15-minute thermal barrier or ignition barrier. The thickness of the foam plastic and coating must be as described in Table 2. The foam plastic must be covered on all surfaces with one of the coatings as set forth in Table 2. The coating must be applied over the insulation in accordance with the coating manufacturer's instructions and this report. The BlazeLok™ TBX must be applied over the insulation in accordance with the coating manufacturer's instructions, [ESR-3997](#) and this report. The DC 315 Coating must be applied over the insulation in accordance with the coating manufacturer's instructions, [ESR-3702](#) and this report. Surfaces to be coated must be dry, clean, and free of dirt, loose debris and other substances that could interfere with adhesion of the coating.

### 4.4 Ignition Barrier – Attics and Crawl Spaces:

**4.4.1 Application with a Prescriptive Ignition Barrier:** When the spray-applied insulation is installed within attics or crawl spaces where entry is made only for service of utilities, an ignition barrier must be installed in accordance with IBC Section 2603.4.1.6 or IRC Section R316.5.3 or R316.5.4, as applicable. The ignition barrier must be consistent with the requirements for the type of construction required by the applicable code, and must be installed in a manner so the foam plastic insulation is not exposed. The insulation as described in this section may be installed in unvented attics in accordance with 2015 IBC Section 1203.3 or 2015 and 2012 IRC Section R806.5 (2009 IRC Section R806.4).

### 4.4.2 Application without a Prescriptive Ignition Barrier:

**General:** HEATLOK SOY® 200 PLUS spray-applied polyurethane foam insulation may be installed in attics and crawl spaces as described in this section without the ignition barriers required by IBC Section 2603.4.1.6 and IRC Sections R316.5.3 and R316.5.4, subject to the following conditions:

- a. Entry to the attic or crawl space is only to service utilities, and no storage is permitted.
- b. There are no interconnected attic or crawl space areas.

- c. Air in the attic or crawl space is not circulated to other parts of the building.
- d. Under-floor (crawl space) ventilation is provided when required by 2015 IBC Section 1203.4 (2015 and 2009 IBC Section 1203.3) or IRC Section R408.1, as applicable.
- e. Attic ventilation is provided when required by IBC Section 1203.2 or IRC Section R806, except when air-impermeable insulation is permitted in unvented attics in accordance with 2015 IBC Section 1203.3 or 2015 or 2012 IRC Section R806.5 (2009 IRC Section R806.4).
- f. Combustion air is provided in accordance with IMC Section 701.

**4.4.2.1 Attics and Crawl Spaces:** In attics and crawl spaces, the insulation may be spray-applied to the underside of the roof sheathing and/or rafters, to the underside of wood floors, and to vertical surfaces as described in this section. The thickness of the foam plastic applied to the underside of the top of the space must not exceed 11½ inches (292 mm), and the thickness when applied to vertical surfaces must not exceed 7½ inches (191 mm).

**4.4.2.2 Use on Attic Floors:** The spray-applied foam insulation may be installed at a maximum thickness of 7½ inches (191 mm) between and over the joists in attic floors.

#### 4.5 Water-resistive Barrier:

HEATLOK SOY® 200 PLUS insulation may be used as the water-resistive barrier prescribed in IBC Section 1404.2 and IRC Section R703.2, when installed on exterior walls as described in this section. The insulation must be spray-applied to the exterior side of sheathing, masonry or other suitable exterior wall substrates to form a continuous layer of 1½ inches (38 mm) minimum thickness. All construction joints and penetrations must be sealed with HEATLOK SOY® 200 PLUS insulation.

#### 4.6 One-hour Nonload-bearing Fire-resistance-rated Wall Assemblies:

HEATLOK SOY® 200 PLUS insulation may be used as a component of a one-hour fire-resistance-rated, nonload-bearing wall assembly as described in this section (Section 4.6).

**4.6.1 Interior and Exterior Face:** Two layers of 5⁄8-inch-thick (15.9 mm), Type X gypsum board complying with ASTM C36 or ASTM C1396 is installed on both the interior and exterior sides of 3⁵⁄8-inch (92 mm), No. 20 gage, galvanized steel studs spaced 24 inches (610 mm) on center. The base layer of the wallboard is secured with No. 6 by 1¼-inch-long (32 mm), self-drilling drywall screws 8 inches (203 mm) on center along the perimeter and 12 inches on center (305 mm) in the field of the wallboard. The face layer of the wallboard is secured with No. 6 by 1⁷⁄8-inch-long (48 mm), self-drilling drywall screws 8 inches (203 mm) on center along the perimeter and in the field of the wallboard. Gypsum board joints must be taped and joints and fasteners heads treated with joint compound in accordance with ASTM C840 or GA-216.

**4.6.2 Stud Cavity:** Nominally 3⁵⁄8-inch-thick (92 mm) HEATLOK SOY® 200 PLUS foam insulation is spray-applied in all stud cavities.

#### 4.7 Exterior Walls of Type I, II, III and IV Construction:

**4.7.1 General:** When used on exterior walls of Type I, II, III, and IV construction, the HEATLOK SOY® 200 PLUS insulation must comply with Section 2603.5 of the IBC

and this section (Section 4.7), and Table 3. The potential heat of Demilec HEATLOK SOY® 200 PLUS insulation is 1930 Btu/ft² (21.8 MJ/m²) per inch of thickness when tested in accordance with NFPA 259.

**4.7.2 Specific Wall Assemblies:** Wall assemblies complying with Section 4.6 must be as described in Table 3.

## 5.0 CONDITIONS OF USE

The HEATLOK SOY® 200 PLUS spray foam insulation described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The products must be installed in accordance with the manufacturer's published installations instructions, this evaluation report and the applicable code. If there are any conflicts between the manufacturer's published installation instructions and this report, this report governs.
- 5.2** The insulation must be separated from the interior of the building by an approved 15-minute thermal barrier, except when installation is as described in Sections 4.3.2 and 4.4.2. A thermal barrier must be installed between the insulation and the interior space above (crawl space) or below (attic).
- 5.3** The insulation must not exceed the thicknesses noted in Sections 3.2, 4.3, 4.4, 4.6, and 4.7.
- 5.4** The insulation must be protected from exposure to weather during and after application.
- 5.5** The insulation must be applied by contractors authorized by Demilec (USA) Inc.
- 5.6** Use of the insulation in areas where the probability of termite infestation is "very heavy" must be in accordance with 2015 and 2009 IBC Section 2603.8 (2012 IBC Section 2603.9) IRC Section R318.4, as applicable.
- 5.7** When use is on exterior walls of buildings of Types I, II, III, and IV, construction must be as described in Section 4.7.
- 5.8** Jobsite certification and labeling of the insulation must comply with 2015 IRC Sections N1101.10.1 and N1101.10.1.1 (2012 IRC Sections N1101.12.1 and N1101.12.1.1 or 2009 IRC Sections N1101.4 and N1101.4.1 and 2015 and 2012 IECC Sections C303.1.1, C303.1.1.1, R303.1.1 and R303.1.1.1 (2009 IECC Sections 303.1.1 and 303.1.1.1), as applicable.
- 5.9** The insulation components A and B are produced in Arlington, Texas and Boisbriand, Quebec, Canada, under a quality control program with inspections by ICC-ES.

## 6.0 EVIDENCE SUBMITTED

- 6.1** Data in accordance with the ICC-ES Acceptance Criteria for Spray-applied Foam Plastic Insulation (AC377), dated April 2016, including reports of tests in accordance with AC377 Appendix X.
- 6.2** Reports of air leakage testing in accordance with ASTM E283.
- 6.3** Reports of air permeance tests in accordance with ASTM E2178.
- 6.4** Reports of water vapor transmission test in accordance with ASTM E96.



- 6.5 Reports of room corner tests in accordance with NFPA 286.
- 6.6 Reports of tests in accordance with ASTM E119.
- 6.7 Reports of fire propagation characteristics tests in accordance with NFPA 285.
- 6.8 Reports of potential heat of foam plastic tests in accordance with NFPA 259.
- 6.9 Supplementary fire engineering analysis.
- 6.10 Data in accordance with the ICC-ES Acceptance Criteria for Foam Plastic Sheathing Panels Used as Water-resistive Barriers (AC71), dated February 2003 (editorially revised January 2016).

**7.0 IDENTIFICATION**

Components of the insulation are identified with the manufacturer's name [Demilec (USA) Inc.], address and telephone number; the product name (HEATLOK SOY® 200 PLUS B-side or A-PDMI); use instructions; the density; the flame-spread and smoke-developed indices; the date of manufacture; thermal resistance values; and the evaluation report number (ESR-3210).

The TPR<sup>2</sup> Corporation Blazelok™ TBX coating is identified with the manufacturer's name, the product trade name, date of manufacture, shelf life, manufacturer's instructions for application and the evaluation report number ([ESR-3997](#)).

The International Fireproof Technology/Paint To Protect, Inc. DC 315 Coating is identified with the manufacturer's name, the product trade name, date of manufacture, shelf life, manufacturer's instructions and the evaluation report number ([ESR-3702](#)).

**8.0 OTHER CODES**

**8.1 Evaluation Scope:**

In addition to the codes referenced in Section 1.0, the products described in this report have also been evaluated for compliance with the following codes:

- 2006 and 2003 *International Building Code*® (IBC)

- 2006 and 2003 *International Residential Code*® (IRC)
- 2006 and 2003 *International Energy Conservation Code*® (IECC)

**8.2 Uses:**

The products comply with the above-mentioned codes as described in Sections 2.0 through 7.0 of this report, with the revisions noted below:

- **Application with a Prescriptive Thermal Barrier:** See Section 4.3.1, except the approved thermal barrier must be installed in accordance with Section R314.4 of the 2006 IRC or Section R314.1.12 of the 2003 IRC.
- **Application with a Prescriptive Ignition Barrier:** See Section 4.4.1, except attics must be vented in accordance with Section 1203.2 of the 2006 and 2003 IBC or Section R806 of the 2003 IRC; and crawl space ventilation must be in accordance with Section 1203.3 of the 2006 and 2003 IBC, or Section R408 of the IRC, as applicable. Additionally, an ignition barrier must be installed in accordance with Section R314.5.3 or R314.5.3 of the 2006 IRC or Section R314.2.3 of the 2003 IRC, as applicable.
- **Application without a Prescriptive Ignition Barrier:** See Section 4.4.2, except attics must be vented in accordance with Section 1203.2 of the 2006 and 2003 IBC, or Section R806 of the IRC; and crawl space ventilation must be in accordance with Section 1203.3 of the 2006 and 2003 IBC, or Section R408 of the IRC, as applicable.
- **Protection Against Termites:** See Section 5.6, except use of the insulation in areas where the probability of termite infestation is "very heavy" must be in accordance with Section R320.5 of the 2006 IRC or Section R320.4 of the 2003 IRC.
- **Jobsite Certification and Labeling:** See Section 5.8, except jobsite certification and labeling must comply with Sections 102.1.1 and 102.1.11, as applicable, of the 2006 IECC.

**TABLE 1—THERMAL RESISTANCE (R-VALUES)**

THICKNESS (inches)	R-VALUE (°F.ft <sup>2</sup> .h/Btu)
1	7.4
1.2	8.8
1.5	11
2	14
3.5	24
4	27
5.5	36
7.5	50
9.25	62
9.5	63
10	66
11.25	75
11.5	76

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- and 4-inch thicknesses.

TABLE 2—USE OF INSULATION WITHOUT A PRESCRIPTIVE THERMAL BARRIER<sup>1</sup>

INSULATION TYPE	MAXIMUM THICKNESS (in.) (Walls & Vertical Surfaces)	MAXIMUM THICKNESS (in.) (Ceilings, Underside of Roof Sheathing/Rafters & Floors)	FIRE-PROTECTIVE COATING MINIMUM THICKNESS & TYPE (Applied to all Foam Surfaces) <sup>2</sup>	MINIMUM APPLICATION RATE OF FIRE-PROTECTIVE COATING	TESTS SUBMITTED
HEATLOK SOY 200 PLUS	7 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	Blazelok TBX 17 wet mils / 11 dry mils	1.06 gal / 100 ft <sup>2</sup>	NFPA 286
	7 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	DC 315 18 wet mils / 12 dry mils	1.13 gal / 100 ft <sup>2</sup>	NFPA 286

For SI: 1 inch = 25.4 mm; 1 mil = 0.0254 mm; 1 gallon = 3.78 L; 1 ft<sup>2</sup> = 0.93 m<sup>2</sup>; NA = not applicable.

<sup>1</sup>See Section 4.3.2.

<sup>2</sup>See Section 3.6.1 and 3.6.2

TABLE 3—NFPA 285 COMPLYING WALL ASSEMBLIES

WALL COMPONENTS	MATERIALS
Base Wall System – Use either 1, 2 or 3	1 – Concrete wall. 2 – Concrete masonry wall. 3 –Minimum 3 <sup>5</sup> / <sub>8</sub> -inch-deep (92 mm), No. 20 gage, C-shaped steel studs, spaced a maximum of 24 inches on center with lateral bracing every 4 feet (1219 mm) as required by code. Sheathing shall be a described in Exterior Sheathing below.
Floorline Firestopping	Minimum 4 pcf mineral wool in each stud cavity at each floorline, attached with Z-clips. Thickness must match stud cavity depth.
Cavity Insulation – Use either 1, 2, 3 or 4	1 – None. 2 – Partial cavity fill depth of 3 inches (76 mm) or full cavity depth of Heatlok Soy 200 Plus. 3 –Glass fiber batt insulation <sup>a</sup> . 4 – Mineral fiber insulation <sup>a</sup> . <sup>a</sup> Insulation must comply with the applicable requirements of 2015 or 2012 IBC Section 720.2 (2009 IBC Section 719.2).
Exterior Sheathing – Only for Base Wall System No.3 –	Minimum 5/ <sub>8</sub> -inch-thick (15.9 mm), glass mat gypsum sheathing complying with ASTM C1177. Sheathing shall be attached with No. 6, 1 <sup>1</sup> / <sub>4</sub> - inch-long (32 mm) self-tapping screws located 8 inches (203 mm) on center along the perimeter and 12 inches 302 mm) on center in the field of wallboard. Joints must be taped and treated with joint compound in accordance with ASTM C840 or GA-216.
Exterior Insulation	Maximum thickness of 3.4 inches (86 mm) of Heatlok Soy 200 Plus.
Exterior Wall Covering – Use either 1, 2, 3, 4, 5 or 6	1 – Brick - standard nominally 4-inch-thick (102 mm) clay brick; brick veneer anchors – standard types installed a maximum of 24 inches OC vertically on each stud <sup>b</sup> . 2 – Stucco - minimum 3/ <sub>4</sub> -inch-thick (19.1 mm), exterior cement plaster and lath with a secondary water-resistive barrier may be installed between the exterior insulation and the lath. 3 – Natural stone (limestone, granite, marble, sandstone), minimum 2-inch-thick (51 mm) <sup>c</sup> . 4 – Cast artificial stone, minimum 1 <sup>1</sup> / <sub>2</sub> -inch-thick (38 mm), complying with AC51 and subject of a current ICC-ES evaluation report <sup>c</sup> . 5 – Terracotta cladding, minimum of 1 <sup>1</sup> / <sub>4</sub> -inch-thick (32 mm) <sup>c</sup> . 6 – Concrete masonry units (CMU), minimum of 1 <sup>1</sup> / <sub>2</sub> -inch-thick (38 mm) <sup>c</sup> . <sup>b</sup> The maximum air gap between exterior insulation and cladding shall be 2 inches (51 mm). <sup>c</sup> Any standard non-open-jointed installation technique such as ship-lap, etc., may be used.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pcf = 16.01 kg/m<sup>3</sup>.

<sup>1</sup> Insulation must comply with the applicable requirements of 2015 or 2012 IBC Section 720.2 (2009 IBC Section 719.2).

## ICC-ES Evaluation Report

## ESR-3210 FBC Supplement

Issued June 2017

This report is subject to renewal March 2018.

[www.icc-es.org](http://www.icc-es.org) | (800) 423-6587 | (562) 699-0543 A Subsidiary of the International Code Council®

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**  
**Section: 07 21 00—Thermal Insulation**

### REPORT HOLDER:

**DEMILEC (USA) INC.**  
3315 EAST DIVISION STREET  
ARLINGTON, TEXAS 76011  
(817) 640-4900  
[www.demilecusa.com](http://www.demilecusa.com)

### EVALUATION SUBJECT:

**HEATLOK SOY® 200 PLUS SPRAY-APPLIED POLYURETHANE FOAM INSULATION**

### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Demilec Heatlok SOY® 200 PLUS medium density spray foam product, recognized in ICC-ES master evaluation report ESR-3210, has also been evaluated for compliance with the codes noted below.

#### Applicable code editions:

- 2014 *Florida Building Code—Residential*
- 2014 *Florida Building Code—Building*

### 2.0 CONCLUSIONS

The Demilec Heatlok SOY® 200 PLUS spray foam product, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2642, complies with the 2014 *Florida Building Code—Residential* and 2014 *Florida Building Code—Building*, provided the design and installation are in accordance with the *International Building Code*® (IBC) provisions noted in the master report.

Use of the Demilec Heatlok SOY® 200 PLUS spray foam product for compliance with the High-Velocity Hurricane Zone provisions of the 2014 *Florida Building Code—Residential* and 2014 *Florida Building Code—Building* has not been evaluated and is outside the scope of this supplemental report.

For products falling under Florida Rule 9N-3, verification that the report holder's quality-assurance program is audited by a quality-assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official, when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report, reissued March 2017 and revised October 2017.