

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 21 00—Thermal Insulation

REPORT HOLDER:

BASF CORPORATION

EVALUATION SUBJECT:

SLENTEX®

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012 and 2009 *International Building Code*® (IBC)
- 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)
- 2018, 2015, 2012 and 2009 *International Energy Conservation Code*® (IECC)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-4281 LABC and LARC Supplement](#).

Properties evaluated:

- Physical properties
- Surface-burning characteristics
- Noncombustibility
- Thermal resistance
- Termite resistance
- Vapor Permeable

2.0 USES

SLENTEX® thermal insulation is used as non-structural thermal insulation material in buildings of all types (Types I through V) construction under the IBC and non-fire-resistive rated dwellings under the IRC. The insulation is for use in all exterior applications; continuous insulation for mullions, curtain walls and rain screens; soffits; and all thermal breaks.

The thermal insulation material may be used as perimeter insulation for slab edges and foundation walls or under slab insulation.

3.0 DESCRIPTION

3.1 General:

SLENTEX® thermal insulation is a flexible aerogel thermal insulation manufactured in thicknesses of 0.39 inches

(10 mm) at 59-inch widths (1500 mm) and at a density of 14.1 pounds per cubic foot (226 kg/m³).

SLENTEX® thermal insulation when tested in accordance with ASTM C1728 is classified as Type III, Grade 1, Category A.

3.2 Surface-burning Characteristics:

SLENTEX® thermal insulation has a flame-spread index of 25 or less and a smoke-developed index of 450 or less in accordance with ASTM E84 (UL723).

3.3 Thermal Resistance:

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

3.4 Vapor Permeance:

SLENTEX® thermal insulation is considered vapor permeable with a moisture vapor permeance rating of greater than 5 perms (2.9 x 10⁻¹⁰ kg/Pa x s x m²) when tested in accordance with ASTM E96 Procedure A.

3.5 Termite Resistance:

SLENTEX® thermal insulation has been tested in accordance with AWPA E1 for termite resistance and may be used in areas where the probability of termite infestation is defined as “very heavy”.

3.6 Noncombustibility:

SLENTEX® thermal insulation has been tested in accordance with ASTM E136 and is classified as a noncombustible building material in accordance with IBC Section 703.5.

4.0 INSTALLATION

4.1 General:

SLENTEX® thermal insulation must be installed in accordance with the manufacturer’s published installation instructions, applicable codes, and this report. The manufacturer’s published installation instructions and this report must be strictly adhered to, and a copy of the instructions must be available at all times on the jobsite during installation.

SLENTEX® thermal insulation must be attached to supports in a manner that will hold the insulation securely in place. The flexible insulation mat must not be used structurally to resist transverse, vertical or in-plane loads except when specifically recognized in a separate evaluation report. The flexible insulation mats must not be used as exterior stud wall bracing. Wall bracing must be provided in accordance with 2018 and 2015 IBC Section 2308.6 (2012 IBC Section IBC Sections 2308.9.3 and

2308.12.4) or IRC Section R602.10. The flexible insulation mats must not be used as a nailing base for exterior wall coverings.

For cementitious exterior wall coating applications, fasteners for SLENTEX® thermal insulation flexible insulation mats thicker than 1½ inches (38 mm) must be considered for lateral resistance to ensure support for the exterior wall coatings. Finish materials over the SLENTEX® thermal insulation must be structurally adequate to resist the required horizontal forces perpendicular to the wall.

5.0 CONDITIONS OF USE

The SLENTEX® thermal 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 SLENTEX® thermal insulation must be installed in accordance with the manufacturer’s published instructions, this evaluation report and the applicable code. If there is a conflict between this report and the manufacturer’s instructions, this report governs.
- 5.2 This evaluation report and the manufacturer’s published installation instructions, when required by the code official, must be submitted at the time of permit application.
- 5.3 Exterior walls must be protected by a water-resistive barrier complying with 2018 IBC Section 1403.2 (2015 and 2012 IBC Section 1404.2) or IRC Section R703.2, and by wall coverings complying with IBC Chapter 14 or IRC Chapter 7, as applicable, and that provide the necessary structural resistance to wind and seismic forces in spanning between wall framing members.
- 5.4 Jobsite certification and labeling of the SLENTEX® thermal insulation must comply with 2018 or 2015 IRC Section N1101.10, 2012 IRC Section N1101.14 (2012 IRC Sections N1101.12.1 and N1101.12.1.1 or 2009 IRC Sections N1101.4 and N1101.4.10)], 2018, 2015 or 2012 IECC Sections C303.1, R303.1 and R401.3 [2009 IECC Section 303.1 and 401.3], as applicable.

- 5.5 SLENTEX® thermal insulation is limited to use in non-fire-resistance-rated assemblies.
- 5.6 Walls on which the flexible thermal insulation mats are applied must be braced in accordance with the applicable code.
- 5.7 SLENTEX® thermal insulation is produced in Northborough, Massachusetts, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Reports of various tests in accordance with ASTM C1728.
- 6.2 Report of tests in accordance with ASTM E84 (UL723).
- 6.3 Report of tests in accordance with ASTM C518.
- 6.4 Report of tests in accordance with ASTM E96 Procedure A.
- 6.5 Report of tests in accordance with ASTM E136.
- 6.6 Report of tests in accordance with AWPA E1.
- 6.7 Quality control documentation in accordance with AC10.

7.0 IDENTIFICATION

- 7.1 Each package of SLENTEX® thermal insulation covered by this report must be labeled with the BASF Corporation company name, manufacturing address, product name (SLENTEX®), flame-spread index and the smoke-developed index, and the evaluation report number (ESR-4281).
- 7.2 The report holder’s contact information is the following:

BASF CORPORATION
1609 BIDDLE AVENUE
WYANDOTTE, MICHIGAN 48192
(734) 324-6500
www.basf.com

TABLE 1—THERMAL RESISTANCE (R-VALUES)

THICKNESS (inch)	R-VALUE (°F·ft²·h/BTU)
0.39	3.2

For SI: 1 inch = 25.4 mm; 1°F·ft²·h/BTU = 0.176110°K·m²·h/W

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**Section: 07 21 00—Thermal Insulation****REPORT HOLDER:****BASF CORPORATION****EVALUATION SUBJECT:****SLENTEX®****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that SLENTEX®, described in ICC-ES evaluation report [ESR-4281](#), has also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 *City of Los Angeles Building Code* (LABC)
- 2020 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The SLENTEX® flexible thermal insulation, described in Sections 2.0 through 7.0 of the evaluation report [ESR-4281](#), complies with the LABC Chapter 13, Sections 703.5.1, 803.1 and 720, the LARC Sections R302.10 and R702.7.2, and is subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The SLENTEX® flexible thermal insulation described in this evaluation report supplement must comply with all the following conditions:

- All applicable sections in the evaluation report [ESR-4281](#).
- The design, installation, conditions of use and identification of the SLENTEX® flexible thermal insulation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-4281](#).
- The SLENTEX® flexible thermal insulation has not been evaluated under LABC Chapter 7A or LABC Section R337 for use in exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

This supplement expires concurrently with the evaluation report, issued July 2020.

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REPORT HOLDER:

BASF CORPORATION

EVALUATION SUBJECT:

SLENTEX®

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that SLENTEX® flexible thermal insulation, recognized in ICC-ES master evaluation report ESR-4281, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The SLENTEX® flexible thermal insulation, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-4281, complies with the *Florida Building Code—Building* and *Florida Building Code—Residential*, provided the design requirements are determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-4281 for the 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, with the following conditions:

Use of the SLENTEX® flexible thermal insulation for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and *Florida Building Code—Residential* have not been evaluated, and is outside the scope of this supplemental report.

For products falling under Florida Rule 61G20-3, 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 evaluation report, issued July 2020.