



LISTING INFORMATION OF

**Elastochem Specialty Chemicals -Insulthane® Extreme
Spray-Applied Polyurethane- CAN/ULC S101 and ASTM E119**

SPEC ID: 80070

Elastochem Specialty Chemicals Inc.
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Canada

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LISTING INFORMATION

Building Code Listing 80070

Product Description:

Insulthane® Extreme Spray-Applied Polyurethane Insulation (SPF) is a two component, closed-cell spray polyurethane foam plastic (ccSPF), produced in the field by combining a polymeric isocyanate (A component) with a resin (B component). The insulation has a nominal density of 2.0 pcf. Refer to Design Listing No. ESC-SI 45-01 for a description of the Insulthane® Extreme insulation when used as a component of an asymmetrical, non-loadbearing fire-resistance-rated wall assembly.

Ratings:

The assembly described in Design Listing No. ESC-SI 45-01 has been assigned the following fire-resistance ratings:

2020 and 2015 National Building Code of Canada® (NBCC):

- 45-minute fire-resistance rating in accordance with CAN/ULC S101-14
- When used on exterior walls having a limiting distance of 1.2m or more, a 1-hour fire-resistance rating in accordance with CAN/ULC S101-14 and the 2020 and 2015 NBCC, Volume-1 Division B, Articles 3.1.7.2 and 3.2.3.1(9), where the equivalent area of unprotected openings is determined in accordance with 3.2.3.1(9) using $F_{E0}=0.01$. or 1%.

2024 and 2021 International Building Code® (IBC):

- When used on exterior walls, a 1-hour fire-resistance rating in accordance with ASTM E119-22 under the 2024 and 2021 International Building Code when protected openings are not limited by 2024 IBC Section 705.9 (2021 IBC 705.8). Where protected openings are limited by 2024 IBC Section 705.9 (2021 IBC 705.8), the equivalent area of unprotected openings must be determined in accordance with 2024 IBC Section 705.8 (2021 IBC 705.7) and Equation 7-1 using $F_{E0}=0.01$ or 1%.

Insulthane® Extreme SPF must be installed in accordance with the manufacturer's published installation instructions, CCRR-0396, the applicable Code, this Listing Report and associated Design Listing No. ESC-SI 45-01, which is attached to this Listing Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

Insulthane® Extreme SPF is manufactured under a quality control program with inspections by Intertek Testing Services NA, Ltd.

Identification:

Containers of Insulthane® Extreme SPF are identified with the manufacturer's name, the product name, the Intertek Mark, the Intertek Control Number and the Building Code Listing Report number (BCL-80070).

Building Code Listing Report Use

- Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.
- Building Code Listing Reports shall not be used in any manner that implies an endorsement of the product by Intertek.
- Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report

Attribute	Value
Criteria	CAN / ULC S101 (2014)
Criteria	ASTM E119 (2022)
CSI Code	07 21 00 Thermal Insulation
CSI Code	07 00 00 Thermal and Moisture Protection
CSI Code	07 21 29 Sprayed Insulation
Listing Section	FOAM PLASTIC INSULATION
Listing Section	THERMAL INSULATION
Spec ID	80070

DRAWING INDEX

ESC-SI 45-01

ESC-SI 45-01



Division 07- Thermal and Moisture Protection
07 21 00 Thermal Insulation
07 21 29 Spray Insulation

Elastochem Specialty Chemicals Inc.

Design No. ESC/SI 45-01

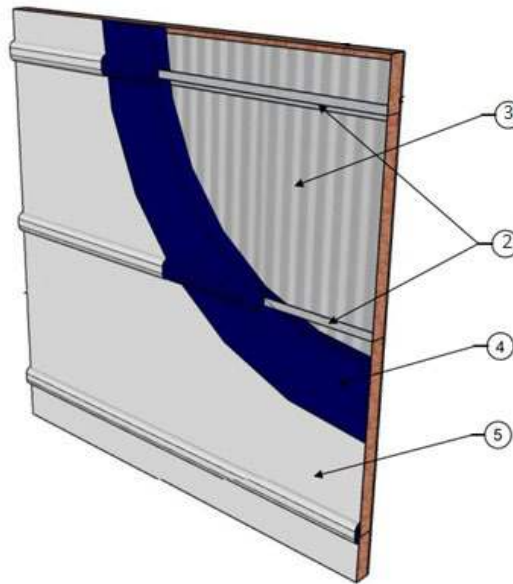
Spray Foam Insulation

Insulthane® Extreme

CAN/ULC S101

ASTM E119

Rating: 3/4 Hour; Asymmetrical Non-load Bearing Wall Assembly, Rated from the Interior Face



1. **BASE WALL ASSEMBLY (Not Shown):** Construct a base wall assembly that shall comply with the local building Code or other applicable regulatory requirements as established by the local Authority Having Jurisdiction.
2. **INTERMEDIATE WALL FRAMING:** Install intermediate supports consisting of 16 GA, 101.6 mm (4 in.) deep Z-girts with 50.8 mm (2 in.) legs, spaced 1.2 m (4 ft.) on center (oc) oriented horizontally. Secure the Z-girt to the base wall using min. 12.7 mm (1/2 in.) long #8 pan-head framing, self-drilling screws.
3. **EXTERIOR CLADDING:** Install min. 26 GA, commercial-grade steel R-panels with 914.4 mm (36 in.) wide, 31.75 mm (1-1/4 in.) deep ribs vertically. Secure panels to the Z-girts with #12-14 self-drilling, external Hex Washer head screws that are 38.1 mm (1-1/2 in.) long, spaced 304.8 mm (12 in.) oc horizontally at each intermediate support. Use #12 self-drilling, external Hex Washer head screws that are 25.4 mm (1 in.) long, spaced 406.4 mm (16 in.) oc vertically at the panel overlap seams and around the entire perimeter into the base wall framing.

Date Issued: August 26, 2024

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Version: 9 June 2021

SFT-BC-OP-19I

ESC-SI 45-01 (2 OF 2)

Division 07- Thermal and Moisture Protection
07 21 00 Thermal Insulation
07 21 29 Spray Insulation

- 4. INTERIOR INSULATION:** Spray-applied polyurethane foam (SPF) insulation

CERTIFIED PRODUCT: Elastochem Insulthane® Extreme (Closed-Cell) spray-applied polyurethane foam (SPF) insulation

Spray-apply at a thickness of 101.6 mm (4 in.) and density of 34.92 kg/m³ (2.18 lbs./ft³) between the intermediate support framing members, directly on the inside face of the exterior cladding.

SPF insulation must be also applied to the intermediate support framing members at a thickness of 38.1 mm (1.5 in.) to conform to the contour of the Z-girts. The application process must follow the manufacturer's published installation instructions.

- 5. INTUMESCENT COATING:** Apply International Fireproof Technology Inc. DC315 intumescent coating at a min. 0.60 mm (23.8 mils) dry film thickness (DFT) to the spray foam insulation. The application process must follow the manufacturer's published installation instructions.

Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.