

# UL Evaluation Report



## UL ER38112-01

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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION  
Sub-level 2: 07 20 00 – Thermal Protection  
Sub-level 2: 07 80 00 – Fire and Smoke Protection (Annular Space Protection)

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### 1. SUBJECT:

FLAMETECH-FB AND THERMALSEAL FOAMED PLASTIC SEALANTS

### 2. SCOPE OF EVALUATION

- 2012, 2009 *International Building Code* ®
- 2012, 2009 *International Residential Code* ® (IRC)

### The products were evaluated for the following properties:

- Surface Burning Characteristics (ANSI/UL723, ASTM E84)
- Annular space protection (ASTM E814 – Modified Version)
- Foam Plastic - Special Approval (NFPA 286)

### 3. REFERENCED DOCUMENTS

- ANSI/UL723 (ASTM E84), Test for Surface Burning Characteristics of Building Materials
- ASTM E814, Standard Test Method for Fire Tests of Penetration Firestop Systems (Modified)
- NFPA 286, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth
- ICC-ES Acceptance Criteria for Quality Documentation, AC10

### 4. USES

Flametech-FB and Thermal Seal are aerosol foam plastic sealants for use as an alternative to the methods prescribed by the code for maintaining the integrity of fire blocking at penetration locations.

The sealants are used:

- To fill cracks and voids in building construction and annular spaces created by penetration of wood fireblocking around pipes and conduits
- On sill plates and headers of Type V construction as prescribed in IBC [Section 2603.4.1.13](#) and IRC [Section R316.5.11](#).
- For sealing cracks and openings in walls not being covered by a thermal barrier

### 5. PRODUCT DESCRIPTION

Flametech-FB and Thermal Seal are single-component, polyurethane foam plastic sealants that expand to take the shape of cracks and voids. The products are packaged in aerosol containers. The foam delivery system consists of a straw and gun.

The sealants have a flame-spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ANSI/UL 723 (ASTM E84), as applied in three  $\frac{3}{4}$  inch diameter beads spaced 5 inches on-center, covering 12.5 percent of the exposed test sample area.

The sealants have been tested in accordance with a modified version of ASTM E814 to establish that the integrity of the fireblocking is maintained when the fireblocking is penetrated.

The sealants have also been tested exposed in a room corner configuration in general accordance with NFPA 286 to demonstrate its use without being covered by a thermal barrier. The sealants were applied to the walls and the wall-ceiling intersection at limited coverage to simulate its use as a sealant for cracks and openings in walls.

### 6. INSTALLATION

Installation of the foam sealants shall comply with this report and the manufacturer's published installation instructions. The installation instructions are to be available at the jobsite during installation.

When used to fill the annular space in wood fireblocking, the sealants shall be installed under the following conditions:

- The sealants shall completely fill the annular space around the penetrations for the full depth of the penetrated framing member.
- The maximum width of the annular space to be sealed shall not exceed  $1\text{-}\frac{7}{16}$  inches.

When used to seal openings and cracks in walls, without the sealant being covered by a thermal barrier, the following conditions apply:

- The maximum width of any exposed sealant strip shall not exceed  $1\frac{7}{16}$  inches and the nominal thickness shall not exceed  $1\frac{1}{2}$  inches.
- The maximum area of exposed sealant shall not exceed 18 in<sup>2</sup> per ft<sup>2</sup> of wall area.

## 7. CONDITIONS OF USE

Flametech-FB and Thermal Seal described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 2 of this report, subject to the following conditions:

- 7.1 Materials and methods of installation shall comply with this report and the manufacturer's published installation instructions. In the event of a conflict between the installation instructions and this report, this report governs.
- 7.2 The sealants shall not be used in applications which sunlight or weather exposure will occur.
- 7.3 A thermal barrier is not required when installed in accordance with Section 6.
- 7.4 Use of the sealants is limited to Type V-B construction under the IBC and to construction permitted under the IRC.
- 7.5 Flametech-FB and Thermal Seal are manufactured under the UL LLC Classification and Follow-Up Service Program, which includes audits in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

## 8. SUPPORTING EVIDENCE

- 8.1 Manufacturer's descriptive product literature.
- 8.2 UL test reports and Classification in accordance with ANSI/UL 723 (ASTM E84). See UL Product Certification Category for Caulking and Sealants ([BLIS](#)).
- 8.3 Report of comparative testing in accordance with a currently accepted, modified version of ASTM E814. Method and criteria of acceptance is on file at UL.
- 8.4 Report of testing in accordance with NFPA 286 on the foam sealant applied to the walls and the wall-ceiling intersection at limited coverage to simulate its use as a sealant for cracks and openings in walls.
- 8.5 Quality Documentation in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

## 9. IDENTIFICATION

Flametech-FB and Thermal Seal described in this evaluation report are identified by a marking bearing the report holder's name (Everkem Diversified Products, Inc.), the plant identification, the UL Classification Mark, and the evaluation report number UL ER38112-01. The validity of the evaluation report is contingent upon this identification appearing on the product.

## 10. USE OF UL EVALUATION REPORT

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- 10.2 UL Evaluation Reports shall not be used in any manner that implies an endorsement of the product, material or system by UL.
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