MasterFormat 07 84 43 - Joint Firestopping MasterFormat 07 84 53 - Building Perimeter Firestopping MasterFormat 07 84 13 - Penetration Firestopping





# **THERMAFIBER® SAFING** MINERAL WOOL INSULATION

Thermafiber® Safing mineral wool insulation products are designed to provide enhanced fire protection in perimeter fire containment systems tested to ASTM E2307, floor and wall penetrations, construction joints, and other firestopping applications. These products are noncombustible, moisture-resistant, non-corrosive, non-deteriorating, mildew-resistant and vermin-resistant. Thermafiber® Safing provides thermal insulation, fire containment, and enhanced acoustical performance in many different UL and Intertek (formerly OPL) listed fire containment assemblies of 1, 2, and 3-hr ratings.

#### **Features**

- Exceptional performance in Perimeter Fire Containment Systems as tested in full-scale ASTM E2307 systems
- · Provides fire containment in rated assemblies
- Fire-resistant to temperatures above 1,093°C (2,000°F)
- · Helps conserve energy, reduce greenhouse gas emissions
- · Mold-resistant
- · Enhances acoustical performance
- Minimum 70% recycled content<sup>1</sup>
- · Contributes to credits in several green building programs, such as LEED® and Green Globes®

# Standards, Code Compliance

- CAN/ULC-S702.1, Standard for Mineral Wool Fibre Thermal Insulations, Type 1 (Unfaced)
- · ASTM C612, Types IA, IB, II, III, IVA

#### **Technical Data**

|            |                        | TESTED TO ASTM C518            |                                       |
|------------|------------------------|--------------------------------|---------------------------------------|
|            | ACTUAL<br>DENSITY      | RSI /25.4 MM @ 24<br>°C M²•K/W | R-VALUE/INCH @<br>75 °F HR•FT²•°F/BTU |
| Safing 4.0 | 64 kg/m³ (4.0 lbs/ft³) | 0.74                           | 4.2                                   |
| Safing 6.0 | 96 kg/m³ (6.0 lbs/ft³) | 0.74                           | 4.2                                   |

#### **Performance Criteria**

| COMPLIANCE | CCMC Evaluation Listing No. 14060-L | CCMC           |
|------------|-------------------------------------|----------------|
|            | Type 1 (Unfaced)                    | CAN/ULC-S702.1 |

## **Additional Performance Information**

| PROPERTY   | VALUE   | TEST METHOD             |
|--|---|-------------------------|
| Corrosion of Steel,<br>Aluminum, and Copper      | Non-corrosive, Types I, II  | ASTM C665               |
| Stress Corrosion -<br>Austenitic Stainless Steel | Pass  | ASTM C795               |
| Non-Combustibility                               | Complies  | CAN/ULC-S114            |
| Non-Combustibility                               | Non-Combustible   | ASTM E136               |
| Water Vapuor<br>Permeance                        | Unfaced, 2850 ng/Pa.s.m² (50 Perms) as tested   | ASTM E96                |
| Water Vapour Sorption                            | Sorption less than 1% by volume   | ASTM C1104              |
| Surface Burning                                  | Unfaced, Flame Spread 0, Smoke Developed 5  | CAN/ULC-S102            |
| Characteristics                                  | Unfaced, Flame Spread 0, Smoke Developed 0  | ASTM E84                |
| Smoulder Resistance -<br>Mean Mass Loss          | ≤ 0.02%   | CAN/ULC-S129            |
| Perimeter Fire<br>Containment Systems            | Thermafiber® Safing insulation used in conjunction with Thermafiber® FireSpan® insulations in the Perimeter Fire Containment System   | ASTM E2307              |
| Penetration Firestop<br>Systems                  | Complies Thermafiber® Safing insulation used in conjunction with an approved fill, void, or cavity material sealant or other approved material in through-penetration firestop systems Complies | ASTM E814 or<br>UL 1479 |
| Fire Resistance of Building<br>Joint Systems     | Thermafiber® Safing insulation used in conjunction with an approved fill, void, or cavity material in construction joint systems  Complies  | UL 2079                 |
| Fire Tests of<br>Firestop Systems                | Complies  | CAN/ULC-S115            |

#### Perimeter Fire Containment Systems Per ASTM E2307

Safing insulation is a critical component of any perimeter fire containment system. Thermafiber, Inc. has performed decades of testing in all of the perimeter fire containment systems listed below.

- · Aluminum Spandrel
- · Steel Stud-Framed/Gypsum Sheathing
- Glass Spandrel
- Granite Spandrel
- Precast Concrete Spandrel
- · Steel Back Pan

For more complete test information, see UL® and Intertek® (formerly OPL) Directories. For a full listing of fire containment systems, visit www.thermafiber.com. UL Reference = TYPE SAF.

For additional job-specific details and accessory materials necessary to complete the Perimeter Fire Containment System, please refer to UL® and Intertek® design listings.2,3

See Owens Corning publication "Enclosure Solutions Perimeter Fire Containment System E2307 Perimeter Technical Bulletin" for more information.

See Owens Corning publication "Thermafiber® Perimeter Fire Containment System Guide" for more information.

- UL Fire Rated Designs, UL 333 Pfingsten Road, Northbrook, IL 60062.
- Intertek Laboratories Designs, Fire Resistance Directory, Intertek 16015 Shady Falls Rd. Elmendorf TX 78112

#### **Availability**

| PRODUCT                              | AVAILABLE THICKNESS                                  | STANDARD DIMENSIONS <sup>4,5</sup>        |
|--------------------------------------|--|---|
| Safing 4.0<br>64 kg/m³ (4.0 lbs/ft³) | 25 mm - 178 mm (1" - 7") in<br>13 mm (½") increments | 610 mm x 1219 mm (24" x 48")              |
| Safing 6.0<br>96 kg/m³ (6.0 lbs/ft³) | 52 mm (2"), 76 mm (3"),<br>102 mm (4"), 152 mm (6")  | 610 mm x 1219 mm (24" x 48")              |
| Tolerances                           | +6 mm (¼"), -3 mm (%")                               | Width: ±3 mm (½"),<br>Length: ±13 mm (½") |

- See our product guide for more details.
- Custom sizes are available upon request.

### Installation

All firestopping insulation should be installed per the tested and listed assembly requirements that most closely represent the project conditions.

- Perimeter Fire Containment Installation: Thermafiber® Safing insulation should be compression-fitted between the slab edge and the Thermafiber® FireSpan® curtain wall insulation, leaving no voids per the UL® or Intertek® design listing.
- Penetration Application: Thermafiber® Safing insulation should be cut slightly larger than the opening and compression-fitted into the opening, leaving no voids per the UL® or Intertek® design listing.
- Construction Joint Application: Thermafiber® Safing insulation should be compression-fitted into the joint opening, leaving no voids per the UL® or Intertek® design listing.

#### **Certifications and Sustainable Features**

- · 1Verified by ICC-ES to contain a minimum of 70% recycled content. See ICC-ES Evaluation Report VAR-1025 at icc-es.org.
- Environmental Product Declaration (EPD) has been certified by UL Environment. For more information, visit ul.com/epd.
- Safing Products have a published Health Product Declaration (HPD).











# **Environmental and Sustainability**

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services.

Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at www.owenscorning.ca or www.owenscorninglibrary.ca.

#### **Technical Services Available**

For Canadian Technical inquiries, please contact our technical team at www.owenscorning.ca/contacttech.

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For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via http://sds.owenscorning.com.

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