



THERMAFIBER® FIRESpan® MINERAL WOOL INSULATION

Thermafiber® FireSpan® mineral wool insulation products are designed to provide enhanced fire protection in curtain wall and perimeter fire containment systems as well as enhanced performance in thermal and acoustical applications. Thermafiber® FireSpan® is available in 4.0 pcf and 8.0 pcf nominal densities for specific application needs. These products are noncombustible, moisture-resistant, noncorrosive, nondeteriorating, mildew-resistant, and vermin-resistant. Its natural colour provides shadowing in glass spandrels. FireSpan® insulations provide thermal insulation, fire containment, enhanced acoustical performance, and vapour control in many different UL® and Intertek® listed fire containment assemblies of 1-, 2-, and 3-hour ratings.¹

¹ See individual listings for hourly F ratings.

Features

- Available in 64 kg/m³ (4.0 pcf) and 128 kg/m³ (8.0 pcf) nominal densities for specific application needs
- Exceptional performance in Perimeter Fire Containment Systems
- Provides fire containment in rated assemblies
- Fire-resistant to temperatures above 1,093°C (2,000°F)²
- Can be easily fabricated to fit around various types of curtain wall anchors
- Helps conserve energy, reduce greenhouse gas emissions
- Mold-resistant
- Enhances acoustical performance
- Natural colour provides shadowing in glass spandrels
- More robust foil-facing provides additional durability on the job site or during transit
- Minimum 70% recycled content³
- Contributes to credits in several green building programs, such as LEED® and Green Globes®

² As tested to ASTM E119 Time Temperature Curve within ASTM E2307.

Standards, Code Compliance

- CAN/ULC-S702.1, Standard for Mineral Wool Fibre Thermal Insulations, Type 1 (Unfaced), Type 3 (Foil Faced)
- ASTM C612
 - FireSpan® 40 Types IA, IB, II, III, IVA
 - FireSpan® 90 Types IA, IB, II, III, IVA, IVB

Technical Data

	NOMINAL DENSITY	TESTED TO ASTM C518	
		RSI /25.4 MM @ 24 °C M ² ·K/W	R-VALUE/INCH @ 75 °F HR·FT ² ·°F/BTU
FireSpan® 40	64 kg/m ³ (4.0 lbs/ft ³)	0.74	4.2
FireSpan® 90	128 kg/m ³ (8.0 lbs/ft ³)	0.74	4.2

Performance Criteria

COMPLIANCE	CCMC Evaluation Listing No. 14060-L Type 1 (Unfaced), Type 3 (Foil Faced)	CCMC CAN/ULC-S702.1
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Additional Performance Information

PROPERTY	VALUE	TEST METHOD
Corrosion of Steel, Aluminum, and Copper	Non-corrosive, Types I, III (Class A, Category 1)	ASTM C665
Non-Combustibility	Complies	CAN/ULC-S114
	Non-combustible	ASTM E136
Water Vapour Permeance	Unfaced FireSpan®, 2850 ng/Pa.s.m ² (50 Perms) as tested Foil-Faced FireSpan®, 1 ng/Pa.s.m ² (0.02 Perms) as tested	ASTM E96
Water Vapour Sorption	Sorption less than 1% by volume	ASTM C1104
Linear Shrinkage	<2% @ 650°C (1,200°F)	ASTM C356
Surface Burning Characteristics	Unfaced, Flame Spread 0, Smoke Developed 0 Faced, Flame Spread 25, Smoke Developed 0	CAN/ULC-S102
	Unfaced, Flame Spread 0, Smoke Developed 0 Faced, Flame Spread 25, Smoke Developed 0	ASTM E84
Fungi Resistance	Complies	ASTM C1338
Perimeter Fire Containment Systems	Safing insulation used in conjunction with Thermafiber® FireSpan® insulations and with an approved fill, void, or cavity material sealant in the Perimeter Fire Containment System	ASTM E2307
	Complies	
Fire Tests of Firestop Systems	Complies	CAN/ULC-S115

Perimeter Fire Containment Tests per ASTM E2307

FireSpan® insulation is the insulation for perimeter fire containment. Thermafiber, Inc. has performed decades of testing in all of the fire containment systems listed below.

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

For more complete test information, see UL® and Intertek® directories. For a full listing of fire containment systems, visit www.thermafiber.com and click on Fire Rated Assemblies.

For additional job-specific details and accessory materials necessary to complete the perimeter fire containment system, please refer to UL® and Intertek® design listings.^{4,5}

See Owens Corning publication [“Enclosure Solutions Perimeter Fire Containment System E2307 Curtain Wall Technical Bulletin”](#) for more information.

See Owens Corning publication [“Enclosure Solutions Zero Spandrel Perimeter Fire Containment System Technical Bulletin”](#) for more information.

See Owens Corning publication [“Thermafiber® Perimeter Fire Containment System Guide”](#) for more information.

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

Availability

Code compliant perimeter fire containment systems require FireSpan® 90 at a minimum of 51 mm (2") or greater and/or FireSpan® 40 at 102 mm (4") or greater and will have a UL® certification. However, each UL® or Intertek® listing requires a specific thickness. Refer to the design listing for correct thickness. Lesser thicknesses, respectively, should be used for thermal or acoustical applications **and will not have a certification.**

THICKNESS ⁶		STANDARD DIMENSIONS ⁷
FireSpan® 40	51 mm - 178 mm (2" - 7")	610 mm x 1219 mm (24" x 48"), 610 mm x 1524 mm (24" x 60"), 914 mm x 1524 mm (36" x 60"), 1219 mm x 1829 mm (48" x 72")
FireSpan® 90	25 mm - 178 mm (1" - 7")	
Tolerances	+6 mm (¼"), -3 mm (⅛")	±3 mm (⅛"), +19 mm (¾"), -6 mm (¼")

6 Thicknesses are available in 13 mm (½") increments.
7 Custom sizes are available upon request.

Product Options

- FireSpan® 40, 51 mm (2") or greater thickness, is available with a vapour-retarding foil-facing.
 - FireSpan® 90, 25 mm (1")⁸ or greater thickness, is available with a vapour-retarding foil-facing.
- 8 Substitution of 51 mm (2") thick FireSpan® 90 mullion covers with 25 mm (1") thick FireSpan® 90 mullion covers will require an engineering judgment from the Thermafiber Insulutions® Team

Installation

FireSpan® products should be mechanically attached to horizontal and vertical mullions based on mechanical fastener requirements per UL/Intertek tested and listed system. Reinforce FireSpan® insulation on the outer insulation surface at the safing line. Typical reinforcement members include hat channels, "L" angles, and "T" bars. Thermafiber Inc.'s patented Impasse® system is designed to quickly and easily mechanically attach FireSpan® insulation to curtain wall systems.

Certifications and Sustainable Features

- ³Verified 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.
- FireSpan® products have a published Health Product Declaration (HPD).



Note: UL® certification for FireSpan® 40 & 90 only.

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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Green Globes® is a registered trademark of Green Building Initiative, Inc.

Notes

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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