



THERMAFIBER® FIRESpan® 40 & FIRESpan® 90 MINERAL WOOL INSULATION

Thermafiber® FireSpan® mineral wool insulation products are designed to provide enhanced fire protection in curtain wall and perimeter fire containment systems. These products are noncombustible, moisture-resistant, noncorrosive, nondeteriorating, mildew-resistant, and vermin-resistant. Its natural color provides shadowing in glass spandrels. FireSpan® 40 & 90 insulations provide thermal insulation, fire containment, enhanced acoustical performance, and vapor control in many different UL® and Intertek® (formerly OPL) listed fire containment assemblies of 1-, 2-, and 3-hour ratings.

Features

- Exceptional performance in Perimeter Fire Containment Systems
- Provides fire containment in rated assemblies
- Fire-resistant to temperatures above 2,000°F (1,093°C)
- Helps conserve energy, reduce greenhouse gas emissions
- Mold-resistant
- Enhances acoustical performance
- Natural color provides shadowing in glass spandrels
- More robust foil-facing provides additional durability on the job site or during transit
- Minimum 70% recycled content¹
- Contributes to credits in several green building programs, such as LEED® and Green Globes®

Standards, Code Compliance

- ASTM C612, FireSpan® 40 Types IA, IB, II, III, IVA; FireSpan® 90 Types IA, IB, II, III, IVA, IVB

Physical Properties

PROPERTY	TEST METHOD	VALUE
Corrosion of Steel, Aluminum, and Copper	ASTM C665	Noncorrosive, Types I, III (Class A, Category 1)
Non-Combustibility	ASTM E136	Non-Combustible
Non-Combustibility	CAN/ULC S114	Complies
Water Vapor Permeance	ASTM E96	Unfaced, 50 perms as tested Foil-Faced, 0.02 perms as tested
Water Vapor Sorption	ASTM C1104	Sorption less than 1% by volume
Linear Shrinkage	ASTM C356	<2% @1,200°F (650°C)
Surface Burning Characteristics	ASTM E84	Unfaced, Flame Spread 0, Smoke Developed 0 Faced, Flame Spread 25, Smoke Developed 0
Surface Burning Characteristics	CAN/ULC S102	Unfaced, Flame Spread 0, Smoke Developed 0 Faced, Flame Spread 25, Smoke Developed 0
Perimeter Fire Containment Systems	ASTM E2307	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 Complies
Fire Tests of Firestop Systems	CAN/ULC S115	Complies

Technical Data

	NOMINAL DENSITY	TESTED TO ASTM C518	
		"K" @ 75° [24°C] BTU.IN/HR.SQ FT. °F	"R" VALUE PER INCH OF THICKNESS ²
FireSpan® 40	4.0 pcf	0.23	4.3
FireSpan® 90	8.0 pcf	0.23	4.3

² R = thickness divided by "k."

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 Perimeter
- Granite Spandrel Perimeter
- Precast Concrete Spandrel
- Steel Back Pan Perimeter

For more complete test information, see UL® and Intertek® (formerly OPL) 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.^{3,4}

See Owens Corning publication "Enclosure Solutions Perimeter Fire Containment System E2307 Curtain Wall Technical Bulletin" (Pub. No. 10020920) for more information.

See Owens Corning publication "Thermafiber® Perimeter Fire Containment System Guide" (Pub. No. 10022722) for more information.

³ UL Fire Rated Designs, UL 333 Pfingsten Road, Northbrook, IL 60062.

⁴ Intertek Laboratories Designs, Fire Resistance Directory, Intertek 16015 Shady Falls Rd. Elmendorf, TX 78112

Availability

	THICKNESS ⁵	WIDTHS ⁶	LENGTHS ⁶
FireSpan [®] 40	2"–7"	24", 36", 72"	48", 60", 72"
FireSpan [®] 90	1"–7"	24", 36", 72"	48", 60", 72"
Tolerances	+¼", -⅛"	±⅛"	+¾", -¼"

5 Thicknesses are available in ½-inch increments.

6 Custom sizes are available upon request.

Product Options

- FireSpan[®] 40, 2-inch or greater thickness, is available with a vapor-retarding foil-facing.
- FireSpan[®] 90, 1-inch or greater thickness, is available with a vapor-retarding foil-facing.
- Recycled Content Options^{1,7}:
 - EPA Choice Fiber (U.S. Government Buildings).....Minimum 75%
 - Standard Fiber.....70%

FireSpan[®] 40 & 90 formaldehyde-free product available. See Owens Corning publication "Thermafiber[®] FireSpan[®] 40 & 90 Formaldehyde-Free Mineral Wool Insulation Data Sheet" (Pub. No. 10023215) for more information.

7 Recycled content options other than standard must be specified at time of order.

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 safin 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.

Thermafiber Insolutions[®]

Thermafiber Insolutions[®] offers industry-leading technical and engineering assistance to architects, specifiers, and contractors. These services include CAD drawings, engineering judgments, LEED[®] credit information, and product recommendations. Contact our technical services department at 1-888-834-2371 or email ThermafiberInsolutions@owenscorning.com.

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.com.

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.
- FireSpan[®] products have a published Health Product Declaration (HPD).
- This product receives SAFETY Act designation by the U.S. Department of Homeland Security. For more information, visit safetyact.gov.



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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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