



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, 8.0 pcf, and 12.0 pcf nominal densities for specific application needs. These products are noncombustible, moisture-resistant, noncorrosive, nondeteriorating, mildew-resistant, and vermin-resistant. Its natural color provides shadowing in glass spandrels. FireSpan® insulations provide thermal insulation, fire containment, enhanced acoustical performance, and vapor 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 4.0 pcf, 8.0 pcf, and 12.0 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 2,000°F (1,093°C)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 color 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

- ASTM C612
 - FireSpan® 40 Types IA, IB, II, III, IVA
 - FireSpan® 90 Types IA, IB, II, III, IVA, IVB
 - FireSpan® 120 Types IA, IB, II, III, IVA, IVB

Physical Properties

PROPERTY	TEST METHOD	VALUE
Corrosion of Steel, Aluminum, and Copper	ASTM C665	Non-corrosive, 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 FireSpan®, Permeable Foil-Faced FireSpan®, Impermeable
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
Fungi Resistance	ASTM C1338	Complies
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

Curtain wall products are approved by New York City Board of Standards & Appeals – (under BSA 214-73-SM & accepted by MEA-209-82-M, Vol. II). Also, MEA-189-93-M and MEA-190-93-M.

Technical Data

	NOMINAL DENSITY	TESTED TO ASTM C518	
		"K" @ 75° [24°C] BTU·IN/HR·SQ FT. °F	"R" VALUE PER INCH OF THICKNESS ⁴
FireSpan® 40	4.0 pcf	0.23	4.3
FireSpan® 90	8.0 pcf	0.23	4.3
FireSpan® 120	12.0 pcf	0.24	4.1

⁴ 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
- 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.^{5,6}

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.

⁵ UL Fire Rated Designs, UL 333 Pfingsten Road, Northbrook, IL 60062.

⁶ Intertek Laboratories Designs, Fire Resistance Directory, Intertek 16015 Shady Falls Rd. Elmendorf, TX 78112.

Product Data Sheet | **Thermafiber® FireSpan®** | May 2023

Availability

Code compliant perimeter fire containment systems require FireSpan® 90 at a minimum of 2" or greater and/or FireSpan® 40 at 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.**

PRODUCT	AVAILABLE THICKNESS IN ½" INCREMENTS	STANDARD DIMENSIONS ^{7,8}			
FireSpan® 40	2"-7"	24" x 48"	24" x 60"	36" x 60"	
FireSpan® 90	1"-7"	24" x 48"	24" x 60"	36" x 60"	48" x 72"
FireSpan® 120	3"	24" x 60"	36" x 60"	48" x 72"	
Tolerances	+¼", -⅛"	Width: ±⅛", Length ±¼"			

7 See our product guide for more details.
8 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-inch⁹ or greater thickness, is available with a vapor-retarding foil-facing.
- FireSpan® 120, 3-inch thickness, is available with a vapor-retarding foil-facing.
- Recycled Content Options³:
 - Standard Fiber.....70%

FireSpan® FF formaldehyde-free product is available. See Owens Corning publication "[Thermafiber® FireSpan® Formaldehyde-Free Mineral Wool Insulation Data Sheet](#)" for more information.

9 Substitution of 2" thick FireSpan® 90 mullion covers with 1" thick FireSpan® 90 mullion covers will require an engineering judgment from the Thermafiber Insolutions® 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.

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

- 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).
- FireSpan® 40 & 90 receive SAFETY Act designation by the U.S. Department of Homeland Security. For more information, visit safetyact.gov.



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

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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>.