



THERMAFIBER INSOLUTIONS®

**INSULATION SOLUTIONS THAT HELP
YOU IMPROVE BUILDING SAFETY**

THERMAFIBER INSOLUTIONS®

Innovative insulation products and systems that help protect your projects and make it easy to get the job done

The Thermafiber Insolutions® team provides perimeter fire containment solutions to fit the unique design needs of today's innovative commercial buildings. This five-step approach saves time and budget on projects, while delivering excellent performance that meets demanding building standards.



*Salesforce Tower
San Francisco, CA*

Our 5-pronged approach to improving building safety¹

1 All-phase consultation and technical expertise



Engineering judgments, accurate and detailed CAD drawings, and a knowledge base of building codes and insulation application techniques focused on perimeter fire containment solutions without sacrificing design. We are the only mineral wool manufacturer that develops engineering judgments on PFC systems and is uniquely suited to evaluate conditions where NFPA 285 is a consideration.

2 High-performing products and systems



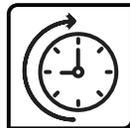
Thermafiber® FireSpan® and Thermafiber® Safing mineral wool insulation products have been extensively evaluated per ASTM E2307 to provide a barrier to fire and hot gases at temperatures above 2,000°F (1,093°C) in tested and listed perimeter fire containment systems with UL® and Intertek®.

3 Cost-saving insulation hanger systems



Patented Thermafiber® Impasse® Hangers lock the perimeter fire containment system in place for faster, more accurate, and safer insulation positioning with less hangers needed than traditional installation methods and less costly components in the PFC system.

4 Labor-saving systems



Patented Thermafiber® Impasse® Perimeter Fire Containment Systems using Thermafiber® Impasse® Hangers streamline the installation of curtain wall insulation by changing the order of traditional installation steps to fit a more logical progression.

5 Contributing to green building credits



Thermafiber® mineral wool insulation that helps earn your building LEED® and other green building program credits with a minimum of 70% recycled content, and available in formaldehyde-free formulations.

¹ Based on comparison done with available competitive perimeter fire containment systems.

THERMAFIBER® SOLUTIONS

HIGH-PERFORMANCE PRODUCTS

Owens Corning® Thermafiber® is a leading manufacturer of mineral wool insulation products. From its inception, Thermafiber® has been the pioneer of perimeter fire containment, dedicated to innovating and improving fire resistance by manufacturing mineral wool insulation.

PERIMETER FIRE CONTAINMENT PRODUCTS

THERMAFIBER® FIRESPAN® CURTAIN WALL

Designed to provide fire resistance in curtain wall and perimeter fire containment systems. FireSpan® products are also available in a formaldehyde-free formulation and are especially appropriate for applications in education, healthcare, and other institutions committed to indoor air quality.

THERMAFIBER® SAFING FIRESTOPPING

Designed to provide fire resistance in perimeter fire containment systems, floor and wall penetrations, construction joints, and other firestopping applications. Safing products are also available in a formaldehyde-free formulation and are especially appropriate for applications in education, healthcare, and other institutions committed to indoor air quality.

THERMAFIBER® FIRELEDGE® CURTAIN WALL — NO BACKER BAR

Designed to provide fire resistance in curtain wall assemblies while eliminating the need for a backer bar. Thermafiber® FireLedge® is an integral component of the patented Thermafiber® Impasse® No Backer Bar™ System.

THERMAFIBER® IMPASSE® SYSTEM PERIMETER FIRE CONTAINMENT

Patented design that streamlines the installation of curtain wall insulation in perimeter fire containment systems by changing the order of traditional installation steps to fit a more logical progression with Thermafiber® Impasse® Hangers and Locking Washers.

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

THERMAFIBER® IMPASSE® HANGERS AND LOCKING WASHERS PERIMETER FIRE CONTAINMENT

Designed to provide superior insulation security and support where mechanical attachment is a requirement. The patented design of Impasse® Hangers reverses the order of installation.

THERMAFIBER® SPIRAL ANCHORS PERIMETER FIRE CONTAINMENT

Designed for easy attachment of the FireSpan® mullion covers to the FireSpan® spandrel insulation panel.

PIONEERS IN PERIMETER FIRE CONTAINMENT

Owens Corning® Thermafiber® is committed to life and property safety through innovation and science. More than 20 years ago, Thermafiber, Inc., helped pioneer the perimeter fire containment system and helped UL® develop a test standard for evaluating perimeter fire containment systems.

Thermafiber® products, systems, and services contribute to life safety.

Three elements of life safety

1



Detection

Alarm systems

2



Active

(suppression)
Sprinkler systems

3



Passive

(Compartmentation systems) Systems that contain the fire to the room of origin, giving occupants time to evacuate the building.

COMMERCIAL & RESIDENTIAL INSULATION PRODUCTS

Thermafiber® offers commercial and residential mineral wool products that conserve energy, control sound, and provide fire resistance. Our mineral wool contains a minimum of 70% recycled content⁷ and is non-combustible, inorganic, and mold-resistant. Thermafiber® continues to be the #1 specified brand of commercial mineral wool.⁸



Fire Resistant

Non-combustible per ASTM E136 and can resist temperatures in excess of 2,000°F in certain fire-rated applications.



Sustainability

70% minimum recycled content and contributes to credits in several green building programs, such as LEED®⁵



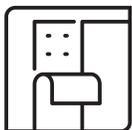
Mold Resistant

Resists mold, fungi, and vermin due to being an inorganic material.



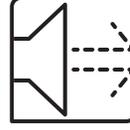
Thermal Comfort

Up to R-4.3 per inch of thickness contributes to energy efficiency and will not decrease as the insulation ages.



Ease of Installation

As a semi-rigid product that is easy to cut and install, its flexibility allows it to conform to building shapes and construction irregularities.



Sound Control

Helps control noise between floors, through walls, and from outdoors.

THERMAFIBER® RAINBARRIER® CONTINUOUS INSULATION

Designed for exceptional performance in rainscreen and exterior cavity wall construction applications. With a full portfolio of ci products and a wide range of compressive strengths, Thermafiber® RainBarrier® mineral wool insulation has a solution available for many façade types while being compatible with various mechanical attachment methods and air barrier systems.

Semi-Rigid Boards:

- RainBarrier® 45
- RainBarrier® HD
- RainBarrier® Dark™ 45
- RainBarrier® Dark™ HD

Rigid Sheathing Boards:

- RainBarrier® ci High Compressive (80)
- RainBarrier® ci High Compressive Plus (110)
- RainBarrier® ci High Compressive Max

THERMAFIBER® SAFB™ (SOUND ATTENUATION FIRE BLANKETS) INTERIOR WALL

Designed to provide acoustical control and fire protection in many UL® fire-rated wall and floor-ceiling assemblies in both steel-stud and wood-stud construction. SAFB™ is also available in a formaldehyde-free formulation for architects, specifiers, and contractors interested in achieving green building standards.

THERMAFIBER® FIRE & SOUND GUARD® PLUS EXTERIOR & INTERIOR WALL

Designed to provide excellent thermal, noise control, and fire resistance in residential and light commercial construction.

THERMAFIBER® VERSABOARD® MULTI-PURPOSE

Multi-purpose insulation providing an combination of characteristics including: enhanced acoustical performance, thermal performance, moisture resistance, and energy conservation for various commercial construction applications, including but not limited to parking garages under decking and mechanical rooms.

THERMAFIBER® TOPSTOP® HEAD-OF-WALL

Trapezoidal-shaped head-of-wall insulation boards and forming strips are designed to provide fire containment in head-of-wall joint constructions. These come in various sizes, and custom sizing is also available upon request. When using Top Stop ensure the correct product is installed at the correct compression to help reduce the amount of time required to cut and install standard safig.

Learn more at
[owenscorning.com/thermafiber](https://www.owenscorning.com/thermafiber).

PIONEERS IN IMPROVING BUILDING SAFETY

In 2017, several Thermafiber® and Owens Corning® insulating materials and services became the first building products to earn the U.S. Department of Homeland Security's SAFETY Act Designation, providing architects and related parties with protection against liability related to acts of terrorism.

What is SAFETY Act Designation?

- In 2002, Congress enacted the Support Anti-Terrorism by Fostering Effective Technologies (SAFETY) Act to encourage deployment of security technologies and services in civilian settings.
- The SAFETY Act limits liability for claims resulting from an act of terrorism where Qualified Anti-Terrorism Technologies (QATs) are deployed.
- The Act applies to a broad range of technologies, including products, services, and software, alone or in combination.



Thermafiber® SAFETY Act Designated products and services

Perimeter Fire Containment Systems and Components

- Thermafiber® FireSpan® 40 & 90
- Thermafiber® Safing
- Thermafiber® Impasse® PFC System
- Thermafiber Insolutions® Design and Installation Services

Construction Joint Fire Containment Systems

- Thermafiber® Safing
- Thermafiber® TopStop®

Penetration Fire Containment Systems

- Thermafiber® Safing

Interior Wall/Floor/Ceiling Systems

- Thermafiber® SAFB™
(Sound Attenuation Fire Blankets)

How does choosing Thermafiber® SAFETY Act Designated products and services help protect your building and reduce liability?



Building owners

When your building is constructed with SAFETY Act Designated Thermafiber® products and services, you get peace of mind knowing your building contains insulation with the highest ratings for perimeter fire containment.



Architects • Firestop Contractors • Curtain Wall OEMs

Specifying and properly installing a Thermafiber® product that carries the SAFETY Act Designation limits your liability in the event of an act of terrorism.



Tenants and occupants

Buildings constructed with SAFETY Act Designated Thermafiber® products have an enhanced life safety system.

Already used a Thermafiber® SAFETY Act Designated product in a previous project?

Your liability protection applies to projects dating back to 2006.



One World Trade Center
New York, NY

THERMAFIBER INSOLUTIONS® AT WORK

SALESFORCE TOWER

Project overview: The tallest building in San Francisco and west of the Mississippi: 1,070 feet high, 61 floors, and 1.4 million square feet

The challenge: The building's rounded corners give it a unique architectural look, but no listed assembly met the needs of the building's arched façade. Further evaluation found other challenges, such as wider spandrel openings.

Thermafiber Insolutions®: Thermafiber® drew from a repository of test data dating back to the 1960s as well as third-party and internal test data specific to the building's conditions. A parallel engineering analysis was also conducted with a third-party engineering firm. The fire containment assembly system was supported by reviewed drawing and engineering judgments provided by Thermafiber Insolutions®.

Architectural results

- Unique aesthetics maintained

Construction results

- Building achieved outstanding floor-to-floor fire separation
- Use of insulation with recycled content contributed to building's LEED® Platinum certification

PARK TOWER AT TRANSBAY

Project overview: 43-floor building pre-certified for LEED® Gold Design

The challenge: The building design featured a back pan assembly installed on the inside surface of the spandrel façade, a technique selected to preserve the architect's design and ensure insulation would not be visible in some parts of the building. Evaluation revealed that only a few perimeter fire containment assemblies for back pans were listed, and none would meet the construction details required for the building's façade.

Thermafiber Insolutions®: Thermafiber® worked with Benson Industries to develop an alternative assembly that would comply with building codes and then tested the assembly in time to avoid construction delays. The new system (CW-D-1037) was tested and approved in under a year.

Architectural results

- Unique aesthetics maintained

Construction results

- Building achieved rigorous code compliance
- Use of insulation with recycled content contributed to LEED® credits

ONE WORLD TRADE CENTER

Project overview: Tallest structure in the Western Hemisphere: 104 stories, 3 million square feet

The challenge: After the tragedy of September 11, 2001, architects and engineers were tasked with creating both an aspirational design and one of the safest skyscrapers ever constructed.

Thermafiber Insolutions®: To meet the extensive code requirements, the Insolutions team reviewed thousands of architectural drawings and issued over two dozen engineering judgments. Thermafiber® mineral wool was used at key points of fire spread vulnerability, including between the floor slabs and curtain wall system and on aluminum mullions. Custom hangers were used to attach insulation in the curtain wall, to accommodate custom framing configurations.

Architectural results

- Safe structure with open floor spaces and beautiful views

Construction results

- Considered one of the safest skyscrapers in the world
- Innovations in design led to new building standards for high rises across New York City and the world

Insolutions applied:



All-phase consultation and technical expertise



High-performance products and systems



Cost-saving insulation hanger systems



Labor-saving systems



Contributes to green building credits



*Salesforce Tower
San Francisco, CA*

Insolutions applied:



All-phase consultation and technical expertise



High-performance products and systems



Contributes to green building credits



*Park Tower at Transbay
San Francisco, CA*

Insolutions applied:



All-phase consultation and technical expertise



High-performance products and systems



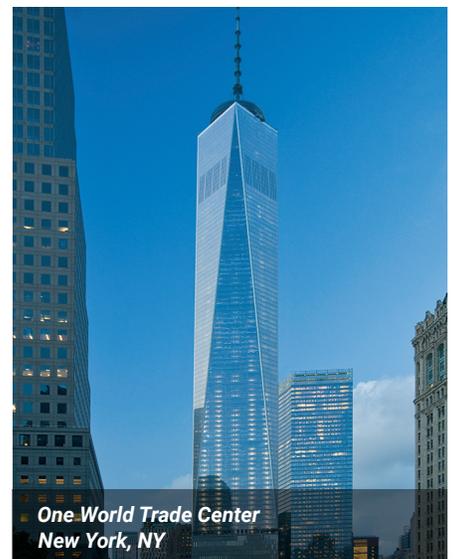
Cost-saving insulation hanger systems



Labor-saving systems



Contributes to green building credits



*One World Trade Center
New York, NY*



Learn more about Thermafiber Insolutions® and how securing an engineering judgment from the pioneers in perimeter fire containment brings peace of mind when it comes to your high-rise fire safety.

Visit www.owenscorning.com/pfc.



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