Thermafiber RainBarrier® Continuous Insulation (ci)

Thermal and fire protection in rain screen/cavity wall construction

Designed for use in open-joint façade construction

RainBarrier insulation easily installs with common wall ties, façade channels and insulation hangers.

Thermafiber®
THE NAME IN MINERAL WOOL®

Fire safety
Moisture resistance
Sustainability

Energy efficiency in buildings becomes more critical every day. Adding RainBarrier as the continuous insulation (ci) on the exterior of your building can help you meet stringent new building codes, such as ASHRAE 90.1. Increasing the amount of insulation used in buildings reduces the amount of heating and cooling needed, which in turn reduces carbon emissions. Rainscreen construction is an effective practice that has been refined in Europe for decades, and it's making a big impact in the U.S.

Thermafiber RainBarrier repels and efficiently drains water in cavity wall systems. Left unchecked, water problems can quickly lead to mold, energy waste, corrosion and rot, among other issues. RainBarrier also adds safety, security, comfort and appeal to your building by offering the following benefits:

- **Protects your building from fire and smoke** with non-combustible material. Smoke protection can be especially critical in high-occupancy buildings such as schools, hospitals and dormitories.

ASTM E 84 Test results	Rigid foam	Thermafiber RainBarrier
Flame spread #	50 (Class B)	0 (Class A)
Smoke developed #	450 (Class B)	0 (Class A)

"Flame spread" and "smoke developed" are terms used to describe burning characteristics of building materials. Rigid foam receives a smoke developed number of 450—the worst score possible. Non-combustible RainBarrier receives ratings of 0—the best possible—for both smoke developed and flame spread.

- **Lets your building "breathe."** RainBarrier is air/vapor permeable, providing better control over humidity, condensation and air quality—and more flexibility when positioning the vapor barrier. (Rigid foam blocks airflow making it more difficult for the building to breathe.)
- **Provides dark and light color options**—not just blue or pink—on our base product, making it easy to camouflage the insulation in open-joint systems.
- **Reduces noise**, leading to fewer distractions and less stress.
- **Improves energy efficiency**. For less than the price of rigid foam, RainBarrier can provide an equivalent or greater R-Value. By insulating on the outboard and inboard sides, you can also reduce long-term operating costs.

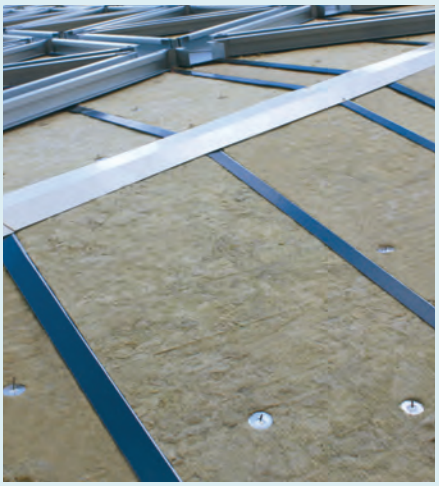
R-Values*

Insulation thickness (inches)	RainBarrier 30	RainBarrier 45
1	**	4.2
1½	6.0	6.3
2	8.0	8.3
2½	10.0	10.4
3	12.0	12.5
3½	14.0	14.6
4	16.0	16.7
4½	18.0	18.8
5	20.0	20.8
5½	22.0	22.9
6	24.0	25.0

*R = thickness ÷ thermal conductivity (R = t/k). R means resistance to heat flow. The higher the R-Value, the greater the insulation power.
**RainBarrier 30 minimum thickness 1½".

Simpler on the jobsite

- **Durable:** RainBarrier won't break down in the sun—leave it exposed for any length of time
- **Flexible:** RainBarrier is semi-rigid and easy to cut, giving you more flexibility and tighter joints versus the jagged edges of field-cut foam
- **Compatible:** Install with common wall ties, insulation hangers and air/vapor barrier systems (for a complete list of installation techniques and recommendations, visit www.thermafiber.com/rainbarrier)

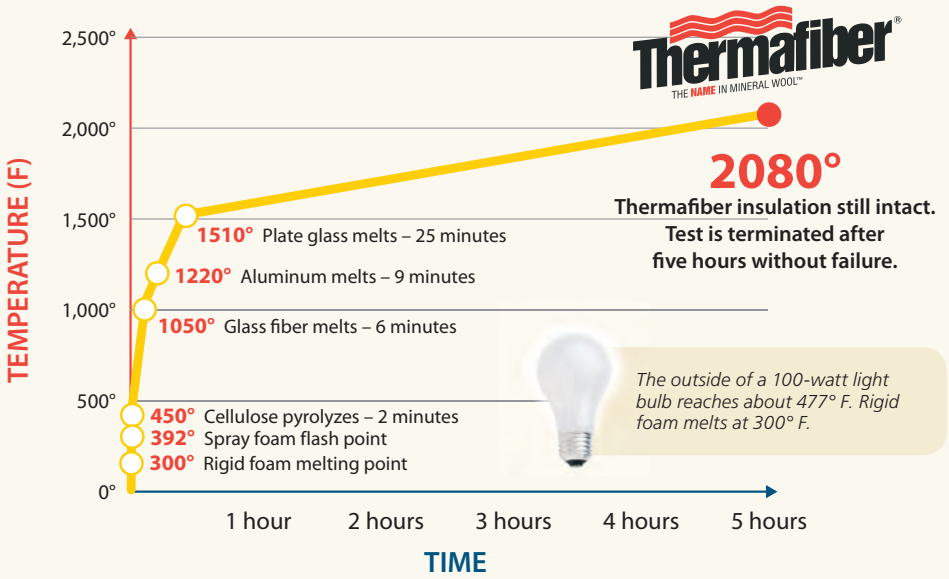


Unlike rigid foam, RainBarrier flexes for a better fit on curved walls and other surfaces.

Easy-to-cut RainBarrier installs with common wall ties and insulation hangers.

Safer in the building

- **Containment:** Improves life safety by preventing fire and smoke from spreading
- **Non-combustible:** RainBarrier remains intact at 2,080° F, even after 5 hours of testing
- **Air quality:** Results of chemical emissions tests show RainBarrier exceeds California's rigorous standard for formaldehyde concentration
- **Sound control:** Helps reduce noise between floors, walls and reduces noise pollution from outside sources



Better for the environment

- **Recycled:** Made with up to 90% recycled content (slag, a byproduct of steel manufacturing)
- **Efficient:** Thermal transfer reduces the amount of energy needed to heat and cool a building, which also reduces carbon emissions
- **Beneficial:** Contributes to 33 LEED credits across 4 categories

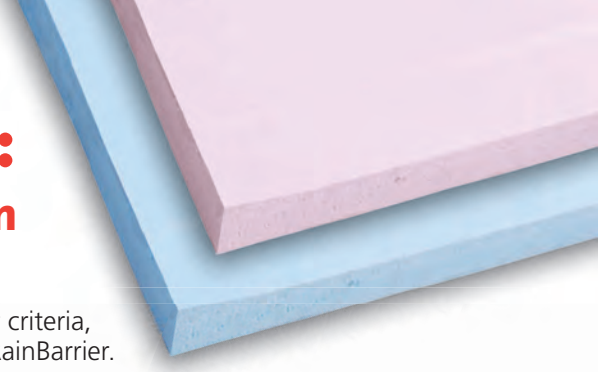
U.S. GREEN BUILDING COUNCIL MEMBER

Up to 90% Recycled Content

LEED® Green Building Credits

Energy & Atmosphere	Materials & Resources	Indoor Environmental Quality	Innovation in Design
1	2.1, 2.2 3.1, 3.2 4.1, 4.2 5.1, 5.2	3.1, 3.2 9	1

Contributes to 33 LEED credits across 4 categories.



RainBarrier® vs. rigid/spray foam:

a head-to-head comparison

Compare RainBarrier to rigid foam.
Compare the efficiency. Compare fire protection.
Compare aesthetics. Compare prices, too. Whatever your criteria,
the more you compare, the more benefits you'll find with RainBarrier.

RainBarrier	Benefit	Rigid/spray foam
Best possible score for both flame spread (0) and smoke developed (0)	**Protects your building from spreading fire and smoke**	Rigid foam receives the worst possible score for smoke developed (450)
Fire resistant to more than 2,000° F	**Fire protection**	Rigid foam is combustible and must be protected from high heat sources
No additional protective or thermal barrier required	**1-piece thermal protection**	May require additional thermal barrier or fire blocks to be added during construction
Up to 90% recycled content—the highest content available	**Conserves natural resources**	Foam products are petroleum based with a maximum recycled content of 40%
Excellent STC & NRC values, helping to keep unwanted noise out of your building	**Provides sound control and noise absorption**	Rigid foam manufacturers don't publish NRC or sound absorption data (for a reason)
Contributes to 33 credits across 4 categories	**Helps you earn valuable LEED Green Building credits**	Contributes to 22 credits across 4 categories
Available in light or dark fiber to help camouflage the insulation in open-joint systems (or ventilated façades)	**Color flexibility with base product to preserve aesthetics**	Base product available in pink, light blue or white
RainBarrier resists ultraviolet light—you can leave it exposed indefinitely	**Insulation doesn't break down under extended exposure to sunlight**	Rigid foam degrades in sunlight and should not be left exposed for over 60 days
Customized project details and renderings, custom product sizing and packaging (you name it, and we've probably already done it)	**Thermafiber Insolutions®, industry-leading technical and customization services**	Standard sizes, standard packaging
For less than the cost of rigid foam, RainBarrier provides an equivalent (or better) R-Value.	**Most cost-effective continuous insulation to meet your thermal requirements**	Foam products can be anywhere from 20% to 40% higher in cost, depending upon the project location
RainBarrier contains no CFC or HCFC Blowing Agents	**Low Global Warming Impact (GWP)[1]**	Blowing agents used in XPS and SPF insulations are harmful greenhouse gases

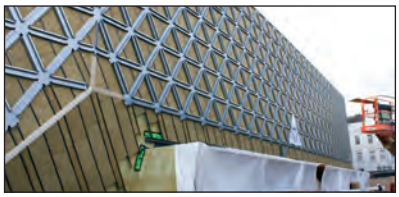
[1]Wilson, Alex. "Avoiding the Global Warming Impact of Insulation". Environmental Building News June 2010: 8-14.

Thermafiber RainBarrier® insulation

RainBarrier protects hospitals, museums, schools, hotels and many other buildings

Thermafiber RainBarrier insulation is installed in a variety of buildings throughout North America. Recent or ongoing projects include:

University of Michigan North Quad
Ann Arbor, MI
$175 million residential and academic complex



Museum of the Moving Image
Astoria, NY
$65 million expansion of museum

Fort Belvoir Community Hospital
Fort Belvoir, VA
Construction of $747 million, 1.2 million-square-foot hospital

Mifflin Park Elementary School
Shillington, PA
Construction of $18.47 million, 79,000-square-foot elementary school

- **North Carolina A & T University General Classroom Facility**
  Greensboro, NC
  Construction of 88,000-square-foot multi-use classroom building
- **Wisconsin Institutes for Discovery**
  Madison, WI
  Construction of 300,000-square-foot biomedical research institutes
- **Dana-Farber Cancer Institute Yawkey Center for Cancer Care**
  Boston, MA
  Construction of 275,000-square-foot outpatient care and clinical research facility
- **Dream New York**
  New York, NY
  Construction of 13-story luxury hotel

Thermafiber Insolutions®

Thermafiber also supports RainBarrier (and all of its mineral wool products) with Thermafiber Insolutions, a customized five-pronged approach that helps you easily and successfully plan, order and install insulation. Insolutions includes:

All-phase consultation

High-performance products

Time-saving insulation hanger systems

Labor-saving customization and packaging

The greenest commercial insulation you can get

You need to make your building more energy efficient. Why not optimize that protection to include fire and smoke? Add in the water repellency and other advantages of RainBarrier, and you'll not only make your building more energy efficient, but also safe and appealing.

It's easy to specify Thermafiber

To specify RainBarrier, just:

1. Go to www.thermafiber.com or log on to your favorite spec service website:
   www.arcat.com
   www.4specs.com
   www.sweets.com
2. Type "Thermafiber" in the search box
3. Click on "Specs" or follow the link to Thermafiber.com and click on "Architectural Specs"
4. That's it. Questions? Call 1-888-834-2371.

For more information about RainBarrier or other Thermafiber products, contact your field representative. Call 1-888-834-2371 or visit www.thermafiber.com.

Thermafiber®
THE NAME IN MINERAL WOOL™

THERMAFIBER Specified 4 to 1 over other brands of commercial mineral wool*

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Continuing Education AIA

Made in the USA

U.S. Green Building Council Member

NAIMA North American Insulation Manufacturers Association

*Reed Construction Data, April 2010