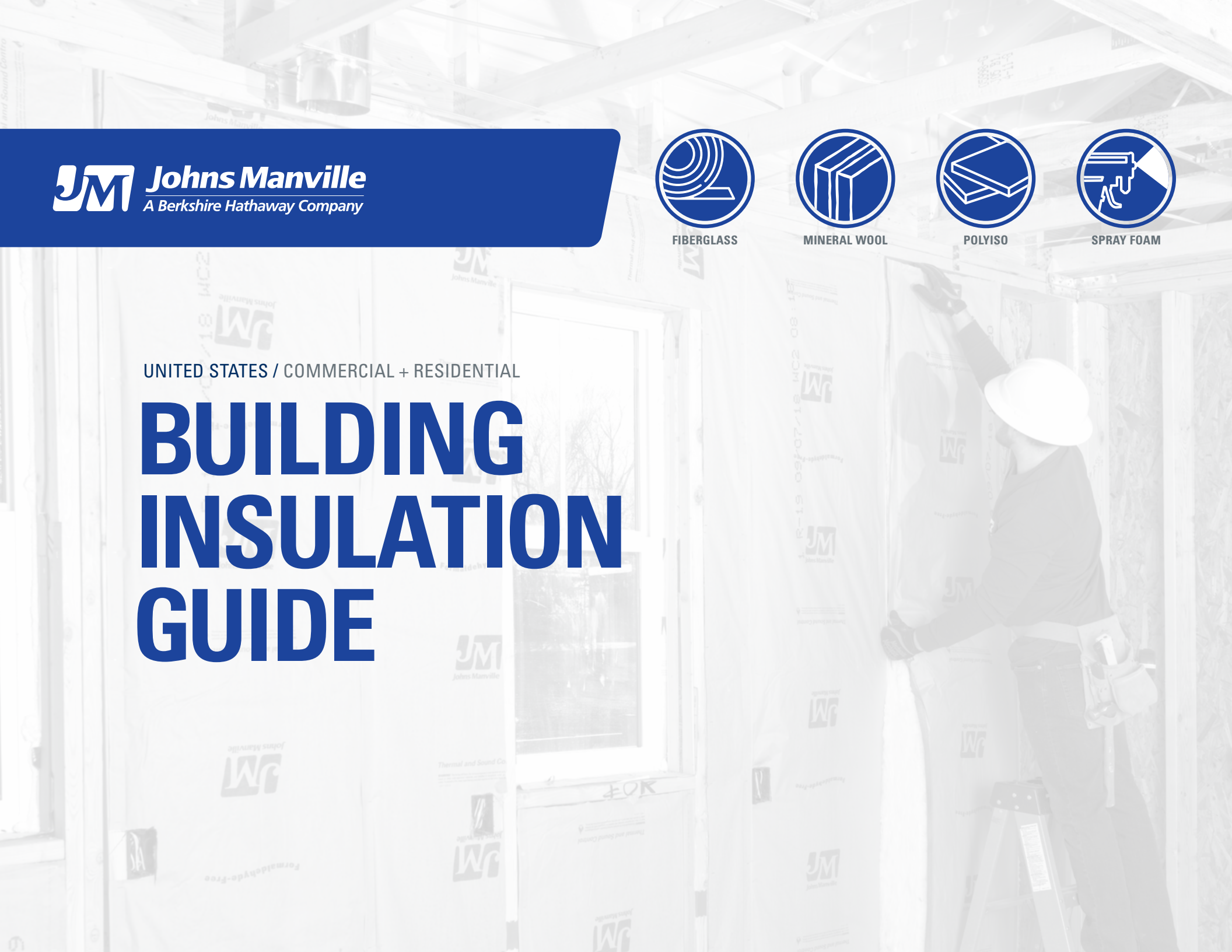
Johns Manville
A Berkshire Hathaway Company

FIBERGLASS MINERAL WOOL POLYISO SPRAY FOAM

UNITED STATES / COMMERCIAL + RESIDENTIAL

# BUILDING INSULATION GUIDE



# ABOUT JOHNS MANVILLE

**Here at Johns Manville, we are more than just a supplier. We're a partner you can count on for the long haul.** When you choose JM, you get products engineered for quality and performance – plus they're backed by our best-in-class customer support. JM has one of the industry's broadest ranges of insulation solutions that work seamlessly together, so you can meet virtually every demand and get the most from your inventory.

## A BERKSHIRE HATHAWAY COMPANY

Johns Manville is proud to be part of Berkshire Hathaway, one of the most respected, financially sound companies in the world. We operate with unquestionable integrity and stability and have unmatched resources to invest in developing future insulation solutions designed to exceed our customers' needs.

## MORE THAN 160 YEARS OF EXPERIENCE AT WORK

When Johns Manville was founded in 1858, we focused on developing materials to make diverse environments stronger and more durable, energy efficient, and comfortable. We also believed in building relationships by providing outstanding service and support. The world has changed, but our principles still hold true today.

## COMPREHENSIVE INSULATION EXPERTISE AND SUPPORT

JM TechConnect℠ is the single source for JM customers to access comprehensive insulation knowledge and installation advice from our dedicated technical experts – in person, by phone or online. We can help you quickly solve even the most complex insulation challenges. **Connect with us at 800-654-3103.**

INSULA

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*JM insulation products do not contain 100% recycled content. Actual recycled content will vary by product and manufacturing location. Please see specific Product Data Sheet or call 800-654-3103 for more information.

All claims within this document are based on the assumption that these JM products are being properly installed.

# FIBERGLASS

## Unfaced Fiberglass

BATTS AND ROLLS

*Available for wood or steel stud framing. May be used with a separate vapor retarder when moisture control is required.*

### ADVANTAGES

**Thermally Efficient:** Effective resistance to heat transfer, with R-values up to R-49.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior wall, floor and ceiling assemblies.

**Fire Resistant:** Flame Spread of 25 or less and Smoke Developed of 50 or less.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

**Superior Performance:** Stable bonded-glass fibers will not slump within the wall cavity, settle or break down during normal applications.

### AVAILABILITY*

**R-Values:** R-11 – R-49

**Widths:** Wood Stud (15" and 23") or Steel Stud (16" and 24")

**Lengths:** Batts (48", 93", 96" and 105") or Rolls (up to 39'2")

**Thicknesses:** Various. Engineered for maximum performance within the cavity.

## Kraft and Foil-Faced Fiberglass

BATTS AND ROLLS

*Helps control moisture in exterior walls.*

### ADVANTAGES

**Thermally Efficient:** Effective resistance to heat transfer, with R-values up to R-49 for kraft-faced and up to R-30 for foil-faced.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

**Fire Resistant:** *Foil-faced:* Flame Spread of 75 or less and Smoke Developed of 150 or less. *Kraft-faced:* no rating.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

**Superior Performance:** Stable bonded-glass fibers will not slump within the wall cavity, settle or break down during normal applications.

### AVAILABILITY*

**R-Values:** R-11 – R-49

**Widths:** Wood Stud (15" and 23") or Steel Stud (16" and 24")

**Lengths:** Batts (48", 93", 94", 96" and 105") or Rolls (up to 39'2")

**Thicknesses:** Various. Engineered for maximum performance within the cavity.



*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

# FIBERGLASS

As one of America's most common insulation materials, JM Formaldehyde-free™ thermal and acoustical fiberglass insulation consists of long, resilient glass fibers bonded with a thermosetting resin. **Where to use: walls, ceilings, floors and attics.**

## Cavity-SHIELD™

### BATTS

*For use in multifamily construction in the concealed spaces between floors.*

#### ADVANTAGES

**Noncombustible:** ASTM E 136, NFPA 13 Section 9.2.1 compliant

**Simple Installation:** No special equipment required.

**Cost-effective:** Economical alternative to blow-in insulation.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces transmission of sound through floor or ceiling assemblies.

**Fire Resistant:** Flame Spread of 25 or less and Smoke Developed of 50 or less (ASTM E84), Class A1.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration and is noncorrosive to pipes, wiring and sheet metal ducts.

#### AVAILABILITY*

**Widths:** 16", 19" and 24"

**Lengths:** 48"

**Thicknesses:** 8", 10" and 12"

## ComfortTherm®

### BATTS AND ROLLS

*Wrapped in plastic for dust-free and itch-free handling and installation.*

#### ADVANTAGES

**Thermally Efficient:** Effective resistance to heat transfer, with R-values up to R-30.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

**Fire Resistant:** Can be left exposed where building codes permit. Flame Spread of 25 or less and Smoke Developed of 50 or less.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

**Superior Performance:** Stable bonded glass fibers will not slump within the wall cavity, settle or break down during normal applications.

#### AVAILABILITY*

**R-Values:** R-13 – R-30

**Widths:** Wood Stud (15" and 23") Attics and Steel Stud (16" and 24")

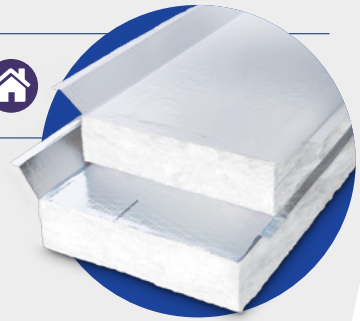
**Lengths:** Batts (48" and 93")

**Thicknesses:** Various. Engineered for maximum performance within the cavity.

# FIBERGLASS

## Panel Deck FSK-25 & PSK† Faced

BATTS



*Extra-wide tabs extend the full length along sides for modular roof deck applications.*

### ADVANTAGES

**Thermally Efficient:** Effective resistance to heat transfer, with R-values up to R-30.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

**Fire Resistant:** Flame Spread of 25 or less and Smoke Developed of 50 or less. Can be left exposed where building codes permit.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

**Superior Performance:** Stable bonded glass fibers will not slump, settle or break down during normal applications.

### AVAILABILITY*

**R-Values:** R-19 – R-30

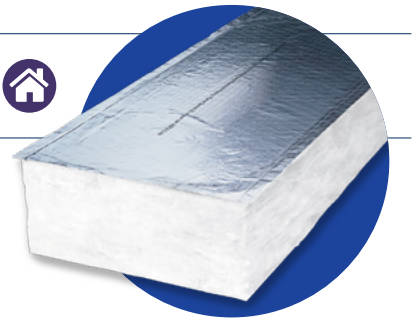
**Widths:** 23" and 24"

**Lengths:** 48", 93", and 96"

**Thicknesses:** 6.25", 6.5", and 10.25"

## FSK-25 Faced

BATTS



*Flame-resistant faced insulation can be used as a vapor retarder.*

### ADVANTAGES

**Thermally Efficient:** Effective resistance to heat transfer, with R-values up to R-38.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

**Fire Resistant:** Flame Spread of 25 or less and Smoke Developed of 50 or less. Can be left exposed where building codes permit.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

**Superior Performance:** Stable bonded glass fibers will not slump within the wall cavity, settle or break down during normal applications.

### AVAILABILITY*

**R-Values:** R-11 – R-38

**Widths:** 15", 16" and 24"

**Lengths:** 48", 93", and 96"

**Thicknesses:** Various. Engineered for maximum performance within the cavity.

†Polypropylene-scrim-kraft.

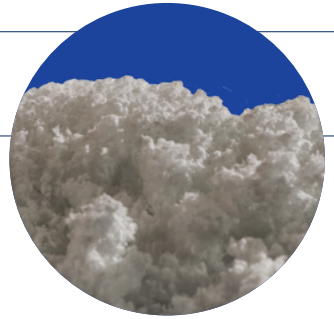
*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

# FIBERGLASS

As one of America's most common insulation materials, JM Formaldehyde-free™ thermal and acoustical fiberglass insulation is comprised of long, resilient glass fibers bonded with a thermosetting resin. **Where to use: walls, ceilings, floors and attics.**

## JM Climate Pro®/JM Attic Protector®

### BLOW-IN FIBERGLASS



*Fits hard-to-reach cavities and corners for easier and faster installation.*

### ADVANTAGES

**Easy Installation:** Insulates attics or spaces of all shapes and sizes without cutting or fitting.

**Complete Coverage:** Effective in tight spaces, areas with large amounts of cross-bridging or small gaps and voids.

**Thermally Efficient:** Effective resistance to heat transfer. No settling; no loss of R-value following installation.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

**Fire Resistant:** Flame Spread of 5 or less and Smoke Developed of 5 or less.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

**Superior Performance:** Stable bonded glass fibers will not slump, settle or break down during normal applications.

## JM Spider® Plus

### BLOW-IN FIBERGLASS


*Fibers interlock into cavities to fill gaps and voids with no adhesive or netting.*

### ADVANTAGES

**Fast Drying:** Dries immediately once installed.

**Complete Coverage:** Effective in tight spaces, areas with large amounts of cross-bridging or small gaps and voids.

**Thermally Efficient:** Effective resistance to heat transfer, with R-values up to R-25 in a 2'x 6' steel-stud cavity, and up to R-23 in a 6" wood-stud cavity.

**Formaldehyde-Free:** Will not off-gas formaldehyde in the indoor environment.

**Sound Control:** Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

**Fire Resistant:** Flame Spread of 5 or less and Smoke Developed of 5 or less.

**Resilient Inorganic Glass:** No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

# FIBERGLASS

## FIBERGLASS SPECIFICATION COMPLIANCE

| Product | ASTM Standards | Flame Spread ASTM E84 | Smoke Development ASTM E84 | Critical Radiant Flux ASTM E970 | Water Vapor Permeance Facing ASTM E96 | Water Vapor Sorption ASTM C1104 | Odor Emission ASTM C1304 | Corrosiveness ASTM 665 | Fungi Resistance ASTM C1388 | VOC Emissions ASTM ES Section 01350 | Combustion Characteristics ASTM E136 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Unfaced Fiberglass** | **ASTM C665, Type I** | ≤25 | ≤50 | >0.12 W/cm$^2$ (0.11 Btu/ft$^2$s) | N/A | 5% or less by weight | Pass | Pass | Pass | Pass | Pass |
| **Kraft-Faced Fiberglass** | **ASTM C665, Type II, Class C, Category 1** | N/A | N/A | | 1.0 Perms (57 ng/Pa-s-m$^2$) | | | | | | N/A* |
| **Foil-Faced Fiberglass** | **ASTM C665, Type III, Class B, Category 1** | ≤75 | ≤150 | | 0.05 Perms (3 ng/ Pa-s-m$^2$) | | | | | | |
| **Cavity-SHIELD** | **ASTM C665, Type I** | ≤25 | ≤50 | | N/A | | | | | | Pass |
| **ComfortTherm Fiberglass** | **ASTM C665, Type II, Class A, Category 1** [Standard ComfortTherm is Category 1 (vapor retarder).] | | | | <0.5 Perms (29 ng/Pa-s-m$^2$) | | | | | | N/A* |
| **Panel Deck FSK-25** | **ASTM C665, Type III, Class A, Category 1** | | | | 0.05 Perms (3 ng/ Pa-s-m$^2$) | | | | | | |
| **FSK-25 Faced** | | | | | | | | | | | |
| **Panel Deck PSK** | **ASTM C665, Type II, Class A, Category 1** | | | | 0.1 Perms (6 ng/Pa-s-m$^2$) | | | | | | |
| **JM Climate Pro Blow-In/ JM Attic Protector** | **ASTM C764, Type I** | ≤5 | ≤5 | | N/A | | | | | | Pass |
| **JM Spider Plus** | | | | | | | | | | | |

JM Fiberglass Batts and Rolls have been tested by an independent third-party laboratory, and meet the labeled R-value as required by the Federal Trade Commission (FTC).

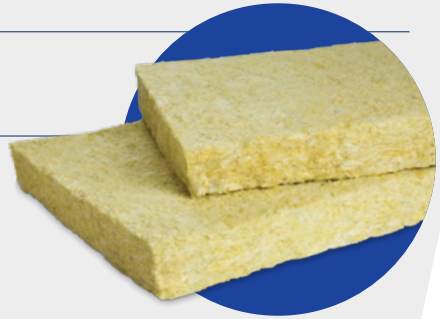


*Fiberglass is noncombustible

# MINERAL WOOL

## TempControl®

BATTS



*Provides thermal comfort when used in exterior walls, basements and heated crawl spaces.*

### ADVANTAGES

**Sound Control:** Absorbs sound and improves wall assembly STC ratings by up to 10 dB.

**Thermally Efficient:** Effective resistance to heat transfer with R-values up to R-30.

**Fire Resistant:** Melting point in excess of 2000°F (1093°C). Flame Spread of 0 and Smoke Developed of 0.

**Durable Inorganic Fibers:** No growth of fungi. No sustaining of vermin.

### AVAILABILITY*

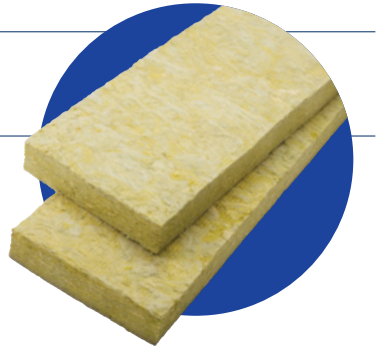
**R-Values:** R-15, R-23 and R-30

**Sizes:** Wood Stud (15.25" x 47", 23" x 47") or Steel Stud (16" x 48", 24" x 48")

**Thicknesses:** 3.5", 5.5" and 7.25"

## Sound & Fire Block®

BATTS



*Reduces unwanted noise and delays fire from spreading between floors and rooms.*

### ADVANTAGES

**Sound Control:** Absorbs sound and improves wall assembly STC ratings by up to 10 dB.

**Fire Resistant:** Melting point in excess of 2000°F (1093°C). Flame Spread of 0 and Smoke Developed of 0.

**Durable Inorganic Fibers:** No growth of fungi. No sustaining of vermin.

### AVAILABILITY*

**Sizes:** 15.25" x 47"

**Thicknesses:** 3"

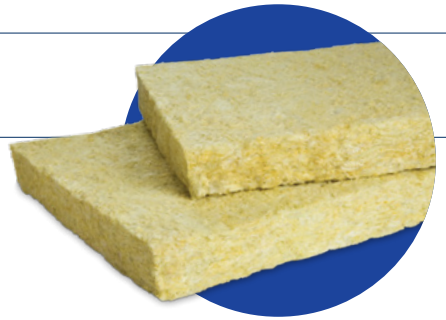


*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

JM Mineral Wool's performance is similar to fiberglass, but it is made from inorganic fibers that are developed from basalt (a type of volcanic rock).
**Where to use: interior and exterior walls, basement walls and heated crawl spaces.**

# MinWool® Sound Attenuation Fire Batts (SAFB)

## BATTS



*Reduces sound transmission with lightweight, flexible batts.*

### ADVANTAGES

**Sound Control:** Absorbs sound and can improve wall assembly STC ratings by up to 10 dB.

**Fire Resistant:** Melting point in excess of 2000˚F (1093˚C). Flame Spread of 0 and Smoke Developed of 0.

**Durable Inorganic Fibers:** No growth of fungi. No sustaining of vermin.

### AVAILABILITY*

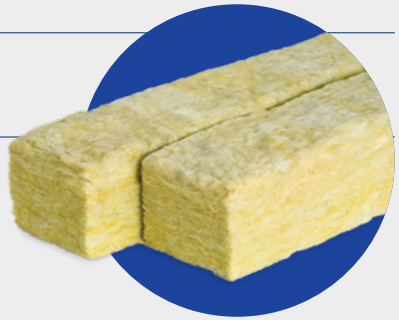
**Sizes:** 16" x 48" and 24"x 48"

**Thicknesses:** 1.5"– 8"

*(Special sizes and thicknesses available upon request. Minimum order quantities may apply.)*

# MinWool® Safing

## BATTS



*Provides a fire-rated seal when installed between spandrel panel and floor slab.*

### ADVANTAGES

**Fire Resistant:** Melting point in excess of 2000˚F (1093˚C).

**Durable Inorganic Fibers:** No growth of fungi. No sustaining of vermin.

*(Available in Unfaced and Faced)*

### AVAILABILITY*

**Sizes:** 24"x 48"

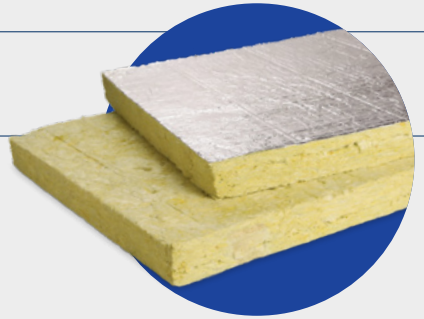
**Thicknesses:** 4"

*(Special sizes and thicknesses available upon request. Minimum order quantities may apply.)*

# MINERAL WOOL

## MinWool® Curtainwall

BOARDS



*Provides superior fire resistance through curtainwall spandrel systems.*

### ADVANTAGES

**Fire Resistant:** Melting point in excess of 2000˚F (1093˚C).

*Unfaced:* Flame Spread of 0 and Smoke Developed of 0.

*Faced:* Flame Spread of 25 or less and Smoke Developed of 5 or less.

**Sound Control:** Excellent sound absorption to reduce sound transmission.

**Durable Inorganic Fibers:** No growth of fungi. No sustaining of vermin.

**Densities:** Curtainwall 40 (4.0 pcf) and Curtainwall 80 (8.0 pcf).

*(Available in Unfaced and Faced)*

### AVAILABILITY*

**Size:** 24"x 48"

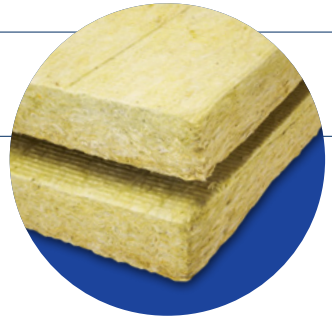
**Thicknesses:** 1.5"– 7"

**Nominal Density:** 4 pcf and 8 pcf

*(Special sizes and thicknesses available upon request. Minimum order quantities may apply.)*

## JM CladStone™ Water & Fire Block

BOARDS



*Flame-resistant continuous insulation for rainscreen applications.*

### ADVANTAGES

**Water-Repellent:** Repels water to ensure drainage when applied as part of a proper exterior wall cavity system.

**Fire Resistant:** Melting point in excess of 2000˚F (1093˚C). Flame Spread of 0 and Smoke Developed of 0.

**Durable Inorganic Fibers:** No growth of fungi. No sustaining of vermin.

**Densities:** CladStone 45 (4.5 pcf), CladStone 60 (6.0 pcf), CladStone 80 (8.0 pcf), and CladStone 110 (11.0 pcf)

### AVAILABILITY*

**Sizes:** 16" x 48" and 24" x 48"

**Thicknesses:** 1"– 7"†

**Actual Density:** 4.5 pcf, 6.0 pcf, 8.0 pcf, and 11.0 pcf

*(Special sizes and thicknesses available upon request. Minimum order quantities may apply.)*

†Available thicknesses vary based on density. Please visit www.jm.com for more details.

*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

# MINERAL WOOL

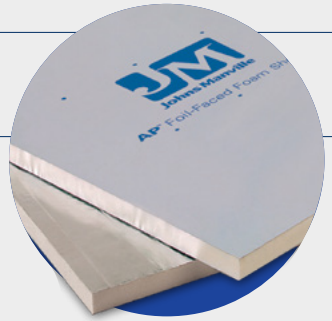
JM Mineral Wool's performance is similar to fiberglass, but it is made from inorganic fibers that are developed from basalt (a type of volcanic rock).
**Where to use: interior and exterior walls, basement walls and heated crawl spaces.**

## MINERAL WOOL SPECIFICATION COMPLIANCE

| Product | ASTM Standards | Thermal Resistance ASTM C518 | Flame Spread ASTM E84 | Smoke Development ASTM E84 | Water Vapor Permeance Facing ASTM E96 | Water Vapor Sorption ASTM C1104 | Odor Emission ASTM C1304 | Corrosiveness ASTM C665 | Fungi Resistance ASTM C1338 | Combustion Characteristics ASTM E136 | ASTM C612 | ASTM C356 | ASTM C1335 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TempControl®** | **ASTM C665 Type 1** | R-15, R-23, R-30 | 0 | 0 | N/A | 5% or less by weight | Pass | Pass | Pass | Pass | N/A | Linear shrinkage <2% 1200°F (650° C) | Shot content less than 25% |
| **Sound & Fire Block®** | | R-3.7 per inch | | | | | | | | | | | |
| **MinWool® SAFB** | | | | | | <1% by weight; <0.02% by volume at 120°F (49°C), 95% RH | | | | | | | |
| **MinWool® Safing** | **ASTM C612 Type 1A-IVB** | R-4–R-4.2 per inch | *Unfaced* 0; *Faced* ≤25 | *Unfaced* 0; *Faced* ≤5 | 0.02 Perms, maximum | | | | | | Type 1–4 | | |
| **MinWool® Curtainwall 40 \| 80** | | | | | | | | | | | | | |
| **MinWool® Window Wall** | | | | | | | | | | | | | |
| **CladStone™ Water & Fire Block 45 \| 60** | **ASTM C612 Type 1A-IVB** | R-4.3 per inch for 45 and 60, R-4.2 for 80 and 110 | 0 | 0 | 50 Perms as tested | Absorbs 0.03% by volume | | | | | Type IA, IB, II, III, IVA, IVB | Linear shrinkage <2% 1200°F (650°C) | Shot content less than 25% |
| **CladStone™ Water & Fire Block 80 \| 110** | | | | | | Absorbs 0.11% by volume | | | | | | | |

# POLYISO CONTINUOUS INSULATI

## AP™ Foil-Faced Continuous Insulation




*Provides moisture, heat and air control, and eliminates major thermal bridges that cause heat loss.*

### ADVANTAGES

**Thermally Efficient:** One of the highest energy efficiencies, inch for inch, with effective resistance to heat transfer.

**Water-Resistive Barrier:** Meets the ICC-ES AC71 acceptance criteria.

**Vapor Barrier:** Class I vapor retarder at one inch.

**Air Barrier:** Meets the Air Barrier Association of America boardstock criteria, when properly installed.

**Lightweight:** Easy to handle and may be cut with a utility knife or saw.

### AVAILABILITY*

**R-Values:** R-2.9–R-28

**Sizes:** 48" x 96", 48" x 108" and 48" x 120"

**Thicknesses:** 0.5"– 4.5"

**Facings:** Printed silver on one side, non-printed opaque white on the other

## AP™ Foil25 Continuous Insulation


*A rigid insulation solution with higher compressive strength.*

### ADVANTAGES

**Thermally Efficient:** Inch for inch, polyiso has one of the highest energy efficiencies.

**Water-R esistive Barrier:** Meets ICC-ES AC71 acceptance criteria.

**Vapor Barrier:** Class I vapor retarder.

**Air Barrier:** Meets the Air Barrier Association of America boardstock criteria when properly installed.

**Noncorrosive:** Does not accelerate corrosion of pipes, wiring or metal studs.

### AVAILABILITY*

**R-Values:** R-10–R-19

**Sizes:** 48" x 96", 48" x 108" and 48" x 120"

**Thicknesses:** 1.65"– 3"

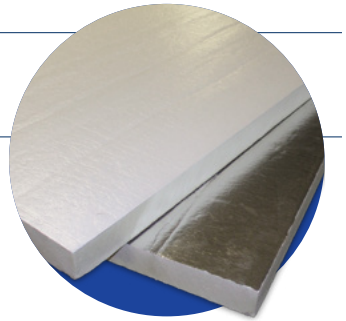
**Facings:** Printed silver on one side, non-printed opaque white on the other



*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

Rigid polyisocyanurate foam sheathing insulation for use in commercial and residential construction where continuous insulation and/or high thermal efficiency is required. **Where to use: *AP™ Foil and AP™ Foil25:* interior and exterior walls, ceilings and crawl spaces; *CI Max®:* exposed interiors, masonry walls and below-grade basement walls.**

# CI Max® Continuous Insulation



*High-performing rigid foam sheathing designed for exposed interior applications.*

## ADVANTAGES

**Thermally Efficient:** One of the highest energy efficiencies, inch for inch. Effective resistance to heat transfer, with R-values up to R-26.

**Vapor Barrier:** Maintains a minimum thickness of one inch and qualifies as a Class I vapor retarder.

**Lightweight:** Easy to handle and may be cut with a utility knife or saw.

## AVAILABILITY*

**R-Values:** R-2.9–R-26 **Sizes:** 48" x 96" **Thicknesses:** 0.5"–4" **Facings:** Non-printed white or non-printed silver

## POLYISO CONTINUOUS INSULATION SPECIFICATION COMPLIANCE

| Product | ASTM Standards | Flame Spread ASTM E84 | Smoke Development ASTM E84 | Water Vapor Transmission ASTM E96 | Compressive Strength ASTM D1621 | Dimensional Stability ASTM D2126 | Water Absorption ASTM C209 | Service Temperature | R-Value / Thickness |
|---|---|---|---|---|---|---|---|---|---|
| AP™ Foil-Faced Continuous Insulation | ASTM C1289 Type I, Class 1 | ≤25 | ≤ 450 | 0.05 Perms (3 ng/Pa-s-m²) | ≥16 psi (110 kPa) | N/A | 0.1% volume | -100 to 250°F | 0.5" = R-2.9<br>1" = R-6<br>1.65" = R-10<br>2" = R-13<br>3" = R-19<br>4" = R-26 |
| AP™ Foil25 Continuous Insulation | | | | 0.05 Perms (3 ng/Pa-s-m²) | ≥25psi (172 kPa) | | | | |
| CI Max® Foam Continuous Insulation | | | | 0.02 Perms (1.4 ng/Pa-s-m²) | ≥16 psi (110 kPa) | | <0.6% volume | | |

# SPRAY FOAM

## JM Corbond® IV

### SPRAY POLYURETHANE FOAM

*Premium closed-cell, HFO blown product delivers high R-value per inch for superior thermal performance.*

### ADVANTAGES

**HFO Blowing Agent:** Zero ODP, with low GWP.

**Complete Coverage:** Expands and adheres without shrinking or settling.

**Energy Efficient:** Reduces air and moisture infiltration to the building envelope and provides continuous coverage for high thermal performance.

**Air Barrier:** Seals gaps and prevents leaks when installed at 1" thickness or more.

**Moisture Performance:** Resists mold growth. Meets current vapor retarder codes as a Class II vapor retarder.

**Wide Application Temperature Range:** Can be applied between 25°F and 120°F, delivering consistent performance with seasonal versatility.

**Faster Installation:** Spray easily in a single pass from a minimum of 0.5" to a maximum of 4". Multiple immediate passes, with no wait time, may also be applied.*

**Commercial Approvals:** NFPA 285 assembly approvals. Appendix X approval for application in unoccupied attics and crawl spaces without a prescriptive ignition barrier or coating.

**Exceptional High Yield:** 5K BFT/set†

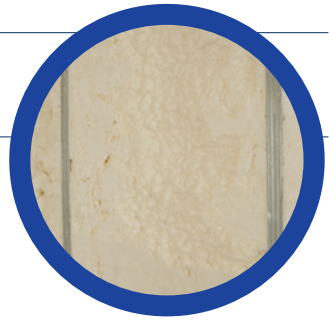
### AVAILABILITY*

**R-Values:** R-7 per inch

**Thicknesses:** May be applied in a single pass from a minimum of 0.5" to a maximum of 4.0".

## JM Corbond® Open Cell No Mix

### SPRAY POLYURETHANE FOAM



*Lower-density, nonstructural, open-cell SPF that delivers high yield at an excellent value and doesn't require mixing.*

### ADVANTAGES

**Energy Efficient:** Helps to improve energy efficiency by filling in gaps and cracks while creating an air seal.

**Air Barrier:** Expands 120 times its volume to seal voids, gaps and crevices. Air-impermeable at 3.75".

**Sound Transmission:** Performs well acoustically when used in an assembly.

**Adhesion:** Exceptional when properly installed.

**Installation:** Provides high yield with superior sprayability at an exceptional value. No mixing required.

**Exceptional High Yield:** 17K BFT/set‡

### AVAILABILITY*

**R-Values:** R-3.8 per inch

**Thicknesses:** May be applied in passes of uniform thickness from a minimum of 1" to a maximum of 12".



*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

†Average 5,000 board feet applied to a dry, clean, sound (OSB) substrate at 75°F while being constantly mixed
‡Average 17,000 board feet applied to a dry, clean, sound (OSB) substrate at 75°F while being constantly mixed

Johns Manville spray foam delivers high yield, superior performance and exceptional sprayability, making it an ideal choice for air-sealing and insulating energy-efficient buildings. **Where to use: interior and exterior walls, unvented and vented attics, floors, ceilings and crawl spaces.**

# JM Corbond® High Yield Open Cell

## SPRAY POLYURETHANE FOAM

*Lower-density, nonstructural, open-cell SPF delivers the highest yield of any JM Corbond open-cell product.*

### ADVANTAGES

**Energy Efficient:** Helps to improve energy efficiency by filling in gaps and cracks while creating an air seal.

**Air Barrier:** Air impermeable at 3.5".

**Sound Transmission:** Performs well acoustically when used in an assembly.

**Installation:** Provides exceptional yield with superior sprayability at an excellent value. Meets requirements for application without an ignition barrier in unoccupied and unvented attics when properly installed.

**Exceptional High Yield:** 20K BFT/set[§]

### AVAILABILITY*

**R-Values:** R-3.6 per inch

**Thicknesses:** May be applied in passes of uniform thickness from a minimum of 1" to a maximum of 12".

## SPRAY FOAM SPECIFICATION COMPLIANCE

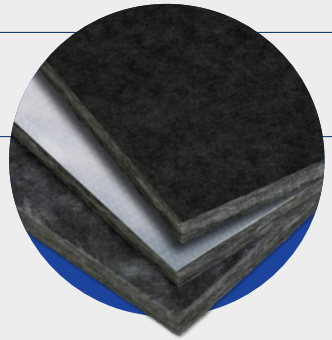
| Product | SPF Acceptance Criteria ASTM AC377 | Flame Spread ASTM E84 | Smoke Development ASTM E84 | Fungi Resistance ASTM C1388 | Dimensional Stability ASTM D2126 | Nominal Density ASTM D1622 | Open-Cell Content ASTM 1940 | Closed-Cell Content ASTM D6226 | Compressive Strength (1") ASTM D1621 | Water Absorption ASTM D2842 | Water Vapor Transmission ASTM E96 | Air Permeance ASTM E2178-03 | Sound Transmission ASTM E90-90 & ASTM E413-87 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JM Corbond IV | Pass | ≤25 | ≤450 | Pass | <15% change in volume | 2.0 pcf | N/A | >90% | 36 psi | 0.9% | 0.61 Perms @ 1.5" | 0.00055 (L/s)/m at 75 Pa | 36 (STC) |
| JM Corbond Open Cell | | | | | | 0.4–0.5 pcf | >92% | N/A | N/A | N/A | N/A | < 0.02 (L/s)/m | 38 (STC) |
| JM Corbond High Yield Open Cell | | | | | | | | | | | | | |

[§]Average 20,000 board feet applied to a dry, clean, sound (OSB) substrate at 75°F while being constantly mixed

# SPECIALTY

## Insul-SHIELD® Black Boards

UNFACED, FACED, FSK-FACED



*Thermal and acoustical fiberglass insulating boards for custom curtainwall applications.*

### ADVANTAGES

**Acoustically Efficient:** Reduces transmission of sound through roofs, ceilings, floors and walls.

**Fire Resistant:** Flame Spread of 25 or less and Smoke Developed of 50 or less.

**Moisture Resistant:** FSK vapor-retarder facings resist water vapor transmission.

**Noncorrosive:** Prevents acceleration of corrosion to pipes, wiring and metal studs.

**Durable:** Will not rot, mildew or otherwise deteriorate, preventing slumping and uninsulated voids.

**Easy to Handle:** Lightweight; maintains its physical integrity during handling.

### AVAILABILITY*

**R-Values:** R-4.3–R-13.0, depending on thickness and density

**Sizes:** 24" x 48" and 48" x 96"

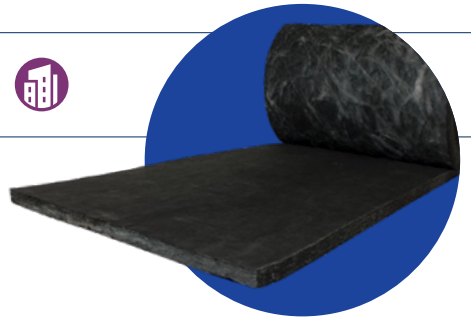
**Thicknesses:** 1" – 3"

**Facings:** Unfaced, FSK-Faced and Black Mat

**Density:** 3.0 pcf

## Insul-SHIELD® Black Rolls

FACED



*Opaque surface absorbs light, eliminating concern about backscatter.*

### ADVANTAGES

**Acoustically Efficient:** Reduces transmission of sound through ceilings and walls.

**Fire Resistant:** Flame Spread of 25 or less and Smoke Developed of 50 or less.

**Noncorrosive:** Prevents acceleration of corrosion to pipes, wiring and metal studs.

**Durable:** Will not rot, mildew or otherwise deteriorate, preventing slumping and uninsulated voids.

**Easy to Handle:** Maintains its physical integrity during handling.

### AVAILABILITY*

**R-Values:** R-4.2 at 1", R-8 at 2"

**Sizes:** 48" x 50' and 48" x 100'

**Thicknesses:** 1" and 2"

**Facing:** Black



*See complete data sheet at **www.jm.com**. Actual color of products may vary from image.
Product image typical of material produced in the U.S.A.

Made from inorganic glass fibers and bonded with a thermosetting resin, JM Insul-SHIELD® Black is a series of flexible, semi-rigid or rigid thermal and acoustical fiberglass boards for custom curtainwall applications. **Where to use: acoustical ceilings, recording studios, curtainwall cavities and dark applications, such as movie theaters and restaurants.**

## INSUL-SHIELD®
# SPECIFICATION COMPLIANCE

| Product | Flame Spread ASTM E84 | Smoke Development ASTM E84 | Max Use Temp ASTM C411 | Water Vapor Permeance Facing ASTM E96 | Water Vapor Sorption ASTM C1104 | Odor Emission ASTM C1304 | Corrosiveness ASTM C665 | Fungi Resistance ASTM C1388 | 0% Linear Shrinkage ASTM C356 |
|---|---|---|---|---|---|---|---|---|---|
| **Unfaced Boards** | ≤25 | ≤50 | 250°F | N/A | 5% or less by weight | Pass | Pass | Pass | None |
| **Faced Boards** | | | | | | | | | |
| **FSK-Faced Boards** | | | | 0.05 Perms (3 ng/Pa-s-m²) | | | | | |
| **Faced Rolls** | | | | N/A | | | | | |

# SPECIALTY

## GoBoard® Tile Backer Board


*Durable, ultra lightweight, waterproof tile backer board.*

### ADVANTAGES

**Fast Installation:** Complete tile projects in half the time or less.

**Ultra Lightweight:** Up to 80% lighter than cement boards, yet engineered for strength and durability.

**Easy to Cut, Handle and Install:** Can be quickly cut right where it's installed with a basic utility knife without crumbling or disintegrating.

**Waterproof:** Seal only the board joints and fastener locations with a waterproof sealant for a waterproof tile assembly.

### AVAILABILITY*

**R-Values:** R-1.2 – R-10

**Sizes:** 3' x 5', 4' x 8' and 4' x 64"

**Board Weight:** 0.4psf to 1psf (psf is lbs/ft2)

**Thicknesses:** 0.25" (floors and countertops), 0.5" and 0.625" (walls, showers, ceilings and floors), 1", 1.5" and 2" (benches, shelves, tub surrounds, vanities and countertops)

## GoBoard® PRO Tile Backer Board


*All the features you enjoy with original GoBoard, plus more. Developed for pro contractor and channel distribution.*

### ADVANTAGES

**Fast Installation:** Complete steam shower tile projects in half the time or less with no mess or fiberglass irritation.

**Ultra Lightweight:** Up to 80% lighter than cement boards, yet engineered for durability with increased overall board strength.

**Easy to Cut, Handle and Install:** Simply cut with a utility knife and attach with GoBoard Fasteners.

**Waterproof Built-in:** Seal only the board joints and fastener locations for a waterproof tile assembly per GoBoard PRO installation instructions.

### AVAILABILITY*

**R-Values:** R-2.3

**Size:** 4' x 64" panel size

**Board Weight:** 0.40 lbs/ft$^2$

**Thickness:** 0.5"



*See complete data sheet at **www.jm.com**. Actual color of products may vary from image. Product image typical of material produced in the U.S.A.

GoBoard® is an ultra lightweight yet durable, waterproof alternative to cement and other heavy tile backer boards.
**Where to use: floors, countertops, walls, showers, ceilings, tub surrounds and vanities.**

# GoBoard® Shower Pan System


*Time-saving versatile shower system that offers easy-to-do on-site shower pan customization.*

## ADVANTAGES

**Fast Installation:** Complete shower tile projects in half the time or less.

**Ultra Lightweight:** Up to 80% lighter than cement boards, yet engineered for strength and durability.

**Easy to Cut, Handle and Install:** Can be quickly cut right where it's installed with a basic utility knife without crumbling or disintegrating.

**Waterproof:** Seal only the board joints and fastener locations with a waterproof sealant for a waterproof tile assembly.

## AVAILABILITY*

**R-Values:** R-1.2 – R-10

**Sizes:** 3' x 5' and 4' x 8'

**Board Weight:** 0.4psf to 1psf (psf is lbs/ft²)

**Wedges:** 48" x 48", 1/4" per ft pre-sloped

**Curbs:** 3.5" x 1.5" x 48"

**Point Drain:** Drain body, risers and grates

**Membranes:** Waterproofing, vapor barrier and crack isolation

## GOBOARD SPECIFICATION COMPLIANCE

| Product | Dimensions (feet) ASTM C473 | Thickness (inches) ASTM C473 | Board Weight (lbs/ft²) | R-Value (°F·ft²·h/BTU) ASTM C518 | Compressive Strength (avg. psi) ASTM D2394 | Moisture Movement (%) ASTM D1037 | Surface Burning Characteristics[1] ASTM E84 | Waterproof ASTM D4068 | WVT Permeance (Perms) ASTM E96 | Resistance to Fungi/Bacteria ASTM G21/G22 | Freeze Thaw ASTM C666 | Robinson Floor Test ASTM C627 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GoBoard® (.25")** | 3' x 5', 4' x 8' | 0.26 | 0.40 | 1.2 | 300 | <0.07 | Pass | Pass[2] | <1 | No Growth | >25 | Light Commercial |
| **GoBoard® (.5")** | 3' x 5', 4' x 8', 4' x 64" | 0.49 | 0.50 | 2.3 | 250 | | | | | | | |
| **GoBoard® (.625")** | 4' x 8' | 0.61 | 0.58 | 2.9 | | | | | | | | N/A |
| **GoBoard® (1", 1.5", 2")** | 4' x 8' | 1.0, 1.5, 2.0 | 0.62, 0.81, 1.0 | 5, 7.5, 10 | 125 | | | Pass[3] | | | | |
| **GoBoard® Wedge** | 4' x 4' | 0.60 | 0.58 | 2.9 | 200 | | | Pass[2] | | | | Residential |
| **GoBoard® Curb** | 3.5" x 2.5" x 48" | N/A | N/A | N/A | 125 | | | Pass[3] | | | | N/A |
| **GoBoard® PRO (.5")** | 4' x 64" | .49 | 0.40 | 2.3 | 300 | | | Pass[2] | <0.5[3] | | | Light Commercial |

[1]Per International Building Code Requirements, [2]ANSI 118.10 certified, [3]Pending

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BID-477 1/25