



Formaldehyde-Free™ Fiber Glass Insulation Enhanced with Bio-Based Binder

UNFACED
PSK FACED



BASEMENT WALL AND POST FRAME INSULATION

COMPANY

Johns Manville is committed to creating more comfortable, healthier and energy efficient indoor environments. We revolutionized the building insulation industry by pioneering the development of Formaldehyde-free™ fiber glass building insulation over a decade ago. We continue to build on our legacy of innovation with a new Formaldehyde-free™ fiber glass insulation solution that utilizes an innovative bio-based binder, made mostly from rapidly renewable plant-based materials, that continues to offer excellent thermal and acoustical performance as well as improved handling, easier cutting and less dust than our previous product. At JM, we believe that in every detail, materials matter.

DESCRIPTION

JM Formaldehyde-free™ thermal and acoustical insulation is made of long, resilient glass fibers bonded with our bio-based binder. Thermal resistance R-values are available to provide thermal control for both vertical and horizontal basement applications. JM Basement Wall insulation is available unfaced or with facing as described herein.

USE

JM Basement Wall Insulation is designed to insulate basements without actually framing and finishing the walls.

PACKAGING

JM Basement Wall Insulation is compression-packaged for savings in storage and freight costs.

DESIGN CONSIDERATIONS

- Polypropylene-Scrim-Kraft (PSK)-faced non-perforated – recommended for most basement walls and post frame construction
- PSK-faced perforated – recommended in areas where wet walls from ground water below grade or curing concrete is a primary concern
- Unfaced – for crawl space applications, where moisture control and a finished appearance are not as important

Note: In colder climate areas, vapor retarders (whether attached to the insulation or applied separately) are often placed toward the heated or conditioned side of the wall. This is done to reduce water vapor penetration into the wall from the building interior. Check your local building codes for vapor retarder requirements. Store insulation indoors. Keep insulation clean and dry at all times. When transporting, cover completely with a waterproof tarpaulin as necessary.

LIMITATIONS OF USE

Check applicable building codes.



PERFORMANCE ADVANTAGES

- **Formaldehyde-free:** will not off-gas formaldehyde in the indoor environment.
- **Thermal Efficiency:** provides effective resistance to heat transfer with an R-value of R-11 (RSI-1.94) or R-19 (RSI-3.35).
- **Sound Control:** reduces transmission of sound through exterior and interior walls and floor/ceiling assemblies.
- **Fire-resistant and Noncombustible:** see Physical Properties.
- **Moisture Control:** the non-perforated PSK facing resists water vapor transmission.
- **Light-reflective:** when exposed, the PSK reflective surface helps maximize lighting efficiency and may reduce lighting requirements.
- **Noncorrosive:** does not accelerate corrosion of pipes, wiring or metal studs.
- **Durable:** will not rot, mildew or deteriorate.
- **Superior Performance:** bonded glass fibers are dimensionally stable and will not slump, settle or break down during normal applications.

ENERGY AND ENVIRONMENT





BASEMENT WALL INSTALLATION

Vertical Applications

Appropriate fasteners must be used for poured concrete walls. This method is not recommended for hollow cinder block walls. Walls that leak water must be repaired before installing.

1. Attach the insulation to the top of the walls. Cut lengths of insulation a few inches longer than the height of the walls. Using a powder-actuated fastening tool, attach each length directly to the concrete using two 1½" pins 4" to 6" from the top of the insulation, and about that same distance from each edge. Butt adjacent pieces of insulation tightly together.
2. After attaching insulation to all walls, tape the seams. First, always pull the insulation behind plumbing to prevent frozen pipes. Pull it behind ductwork as well, to minimize heat loss. Then use 3" white vinyl patch tape to seal the seams along the full length of the insulation.
3. Cut out the insulation around window openings and large obstructions. Cut the insulation at the inside edges of window openings. Then use the 3" white vinyl patch tape to seal around the openings. Compress the insulation slightly to tape the facing to the inside of the window well. Seal the cut-out openings around any large obstructions, as well.
4. Trim the bottom of the insulation. Using a sharp knife or razor, neatly cut the excess insulation from the bottom, so that the bottom edge is flush with the floor. This completes the installation.

Horizontal Applications

Full-wall application is recommended especially for hollow block walls to minimize the heat loss from air circulation within the hollow cores. Half-wall application is allowed by some building codes. Walls that leak water must be repaired before insulating.

- 1A. Attach 2 x 2 furring strips to the mounting surfaces. Nail furring strips to the sill plate at the top of the walls. Using an appropriate fastening technique for the wall type, attach a second set of furring strips so that their top edges are 48" below the bottom edges of the top strips. With full-wall insulation, install a third set of furring strips so that their top edges are 2" above the floor to prevent the insulation from becoming wet in damp basements. Frame all window openings and large obstructions with additional 2 x 2 furring.
- 2A. Attach the insulation to the top and center furring strips. With the faced side toward you, staple the tabs on the facing to the furring strips. Staple every 4", with the staples parallel to the edges of the tabs. Always pull the insulation behind plumbing to prevent frozen pipes. Pull it behind ductwork as well, to minimize heat loss.
- 3A. Cut out the framed openings and attach the insulation to the furring strips around them. First, cut the insulation at the inside edges of the framing, and then cut back the fiber glass only (not the facing) 1½" to create a flange for stapling. As before, staple every 4", with the staples parallel to the edges of the tabs.
- 4A. With full-wall installations, attach insulation to the center and bottom furring strips. Measure the distance between the center and bottom strips. Cut the insulation to that width, adding 1½" to create a stapling flange. Create the flange by cutting back the fiber glass only (not the facing) 1½" from the bottom edge. Staple the flanges to the center and bottom furring strips. Staple every 4", with the staples parallel to the edges of the tabs.
- 5A. Complete the job by giving the insulation a "finished" appearance. Tape all joints, seams and stapled edges with 3" white vinyl patch tape.





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PRODUCT DATA SHEET

UNFACED | PSK FACED

PHYSICAL PROPERTIES & BUILDING CODE CLASSIFICATION

ASTM C 665, Type I (Unfaced), Type II, Class A Category 1 (faced, not perforated) or Category 2 (faced, perforated)

ASTM E 96 Permeability: PSK- faced (not perforated) — 0.1 Perms

PSK- faced (perforated) — 30 Perms or more

ASTM E 84 Flame Spread 25 or less, Smoke Developed 50 or less

ASTM E 136 Noncombustible (fiber glass only)

	IBC/IRC	FLAME SPREAD**	SMOKE DEVELOPED**
Basement Wall Unfaced	All Types/ All Types	25	50
Basement Wall Faced	All Types/ All Types	25	50
Post Frame Faced	All Types/ All Types	25	50

STANDARD SIZES

PRODUCT	R-VALUE (hr•ft ² •°F/Btu)	RSI-VALUE (m ² •°K/Watts)	THICKNESS		WIDTH	
			(in)	(mm)	(in)	(mm)
Unfaced	R-11	1.94	3½	89	48	1218
PSK-Faced (perforated)	R-11	1.94	3½	89	48	1218
PSK-Faced (non-perforated)	R-19	3.35	6½	165	48	1218

*GREENGUARD certification is not intended for residential environments. Instead, the certification is intended only for buildings meeting ASHRAE 62.1-2007 commercial building ventilation rates. This certification is proof that the product meets the GREENGUARD Environmental Institute's indoor air quality standards and product emission standards for VOCs.

**Per ASTM E 84



Visit our website at www.JM.com or call **800-654-3103** | **Building Insulation Division** P.O. Box 5108 | Denver, CO 80217-5108

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of thermal and acoustical fiber glass insulation listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the sales office nearest you for current information. All Johns Manville products are sold subject to Johns Manville's Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville Limited Warranty and Limitation of Remedy or for information on other Johns Manville thermal and acoustical insulation and systems, visit the website or call the 800 number above. 717 17th Street Denver CO, 80202

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