



Smart Ideas. Better Insulation.

## Basement Wall Insulation®

Formaldehyde-free Thermal and Acoustical  
Fiber Glass Insulation



### FORMALDEHYDE-FREE

Johns Manville has revolutionized the building insulation industry by introducing an entire line of formaldehyde-free fiber glass building insulation. JM Formaldehyde-free insulation provides the same high-quality thermal and acoustical properties as conventional JM fiber glass – just without the formaldehyde-based binder. Why? Because it's a smart thing to do for our customers and the environment. Formaldehyde has traditionally been used as part of the binder in fiber glass insulation. Although there is no health risk with the traditional product, formaldehyde at higher levels may cause irritation and sensitivity. JM Formaldehyde-free building insulation utilizes an innovative new acrylic binder that eliminates binder-related formaldehyde emissions during manufacturing and, once installed, will not off-gas formaldehyde in the indoor environment. No formaldehyde means fewer things to worry about. Visit us at [www.jm.com](http://www.jm.com) for more information.

### PRODUCT DESCRIPTION

Johns Manville Basement Wall Insulation is designed to insulate basements without actually framing and finishing the walls. It is a lightweight thermal and acoustical fiberglass insulation made of long, resilient glass fibers bonded with an acrylic thermosetting binder.

### AVAILABLE FORMS AND APPLICATIONS

- Polypropylene-Scrim-Kraft (PSK)-faced non-perforated – recommended for most basement walls
- PSK-faced perforated – recommended in areas where wet walls from ground water 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. Conversely, in predominantly hot, humid climates local practices often call for placing the vapor retarder toward the outside of the wall cavity. Check your local building codes for vapor retarder requirements.

### PACKAGING

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

### RECOMMENDED STORAGE AND TRANSPORT

Store insulation indoors. Keep insulation clean and dry at all times. When transporting, cover completely with a waterproof tarpaulin as necessary.

### SPECIFICATION COMPLIANCE

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)

### SHORT FORM SPECIFICATION

All insulation shown on drawings or specified herein shall be "Johns Manville Formaldehyde-free Basement Wall Insulation." Thermal resistance "R" (RSI) values of the insulation shall be R (RSI) \_\_\_\_\_ in walls.

### 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-1.9).
- Sound Control – reduces transmission of sound through exterior and interior walls and floor/ceiling assemblies.
- Fire-resistant and Noncombustible – (see Specification Compliance).
- 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 – unaffected by moisture, oil, grease and most acids. It will not rot, mildew or otherwise deteriorate.
- Resilient – bonded glass fibers will not pull apart during normal applications and resist settling, breakdown and sagging from vibration.

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## 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 Hilty gun (or equivalent), attach each length directly to the concrete using two 1 1/2" 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. Alternately, if stick tab product is being used, peel the adhesive backing and carefully seal tabs to adjacent pieces.
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) 1 1/2" 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 1 1/2" to create a stapling flange. Create the flange by cutting back the fiber glass only (not the facing) 1 1/2" 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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## BUILDING CODE COMPLIANCE AND FIRE HAZARD CLASSIFICATION

	ICBO	SBCCI	BOCA	IBC/IRC	Flame Spread*	Smoke Developed*
Basement Wall Unfaced	All Types	All Types	All Types	All Types/All Types	25	50
Basement Wall Faced	All Types	All Types	All Types	All Types/All Types	25	50

\*Per ASTM E 84.

## AVAILABLE FORMS\*

Specification Compliance	R-value (hr-ft <sup>2</sup> ·°F/Btu)	RSI-value (m <sup>2</sup> ·°K/Watts)	Thickness		Width	
			(in)	(mm)	(in)	(mm)
ASTM C 665 Unfaced Type I	R-11	1.9	3 3/8	92	48	1218
ASTM C 665 PSK-faced (non-perforated)** Type II Class A Category I	R-11	1.9	3 1/2	89	48	1218
ASTM C 665 PSK-faced (perforated) Type II Class A Category 2	R-11	1.9	3 1/2	89	48	1218

\* Consult your local sales representative or product availability chart for other available sizes and R-values (RSI-values).

\*\* Available in non-perforated stick tabs.



Properly insulating a structure using Johns Manville building insulation helps preserve our environment by reducing energy consumption for heating and cooling, reducing the pollution resulting from fuel burning, reducing the emission of hazardous air pollutants during manufacturing and reducing waste through the utilization of recycled materials. Look for the cross and globe emblem on Johns Manville building insulation which indicates independent certification by Scientific Certification Systems, Inc. of 25% or more recycled glass content.

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of Basement Wall 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, call or write to the 800 number or address listed below.



Distributed by:

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