

### 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 a thermosetting resin. 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



## APPLICABLE STANDARDS & BUILDING CODE CLASSIFICATION

PSK FACED INSULATION
ASTM C665, Type I; ASTM E136
IBC, ALL TYPES

## STANDARD SIZES\*

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

## PHYSICAL PROPERTIES\*\*

PRODUCTION	FLAME SPREAD	SMOKE DEVELOPED	VAPOR RETARDER (PERMS)
PSK Faced†	<25	<50	0.1

### 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.

*\*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.*

*\*\*Products are tested in accordance: R-value ASTM C518 | Surface Burning Characteristics ASTM E84 | Perm Rating ASTM E96. Do not place insulation within 3" of light fixtures or similar electrical devices unless device is labeled for contact with insulation. Use only unfaced insulation between wood framing and masonry chimneys. Do not use insulation in spaces around metal chimneys, fireplaces, or flues. JM Unfaced insulation is considered non-combustible by model building codes. Flame Spread 25 products are flame spread rated and can be left exposed where codes allow. See package for warnings, fire hazard and installation instructions, or call 800-654-3103.*

*<sup>†</sup>Unfaced fiberglass insulation is considered noncombustible according to ASTM E136. Due to potential skin irritation, unfaced insulation should not be used for exposed applications where it will be subject to human contact.*