



Insulation Systems Submittal Form

JOHNS MANVILLE: A HISTORY OF INNOVATION

Johns Manville is the only manufacturer of fiber glass, polyurethane spray foam and polyisocyanurate insulation. This allows Johns Manville to offer a complete range of solutions that includes foam and fiber glass products, so you can be certain that our team of experts will direct you to the best insulation option to suit your particular requirements.

In our 150-year history at the forefront of insulation production, we are not just the only manufacturer with a wide range of insulation solutions, but we also led the way as the first to offer a full line of certified Formaldehyde-free™ fiber glass building insulation.

Contact your local Johns Manville representative today and find the easiest way to achieve energy efficiency in your builds through our foam and fiber glass insulation solutions. Visit specJM.com for more information.

Submitted To: _____

Submitted By: _____ Date: _____

Job Reference: _____

Job Name: _____

Address: _____

State: _____ Zip: _____

Email Address: _____

Phone: _____ Fax: _____

Materials Provided	Product Description	R-value/Size (thickness, nominal)	RSI-value/Size (thickness, nominal)	Location	Specification Compliance	
<input type="checkbox"/> FSK-25 Faced Batts <i>JM</i> FORMALDEHYDE-FREE™ INSULATION	Fiber glass batts for thermal and acoustical applications faced with a flame-resistant, foil-scrim-kraft laminate. Meets ASTM E84 flame/smoke rating of 25/50 or less. The reflective foil facing has a maximum perm rating of 0.05 Grains/hr • ft ² • in. Hg (2.9 ng/s • m ² • Pa).	FOR METAL FRAMING			ASTM Standard C665 Type III Class A Category 1	
		<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm			
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm			
		<input type="checkbox"/> R-11/3⅝"	<input type="checkbox"/> RSI-1.9/92 mm			
		FOR WOOD FRAMING				
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm			
<input type="checkbox"/> ComfortTherm® Poly-encapsulated Batts with Vapor-retarder Facing <i>JM</i> FORMALDEHYDE-FREE™ INSULATION	Poly-encapsulated batts for thermal and acoustical applications are designed for concealed metal and wood-framed wall and ceiling applications, directly above suspended ceiling systems and under floors. Poly-encapsulation makes installation cleaner and acts as a vapor retarder. Wrapped in polyethylene film with maximum perm rating of 0.5 Grains/hr • ft ² • in. Hg (29 ng/s • m ² • Pa). These batts resist heat, sound and vapor transmission. Meets Fire Hazard Classification rating of 25/50 or less.	FOR METAL FRAMING			ASTM Standard C665 Type II Class A Category 1 (non-perforated surface) UL File R3711 ASTM E84 Flame Spread 25 or less Smoke Developed 50 or less	
		<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm			
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm			
		<input type="checkbox"/> R-11/3⅝"	<input type="checkbox"/> RSI-1.9/92 mm			
		FOR WOOD FRAMING				
		<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm			
		<input type="checkbox"/> R-21/5½"	<input type="checkbox"/> RSI-3.7/140 mm			
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm			
		<input type="checkbox"/> R-11/3½"	<input type="checkbox"/> RSI-1.9/89 mm			
		FOR WOOD FRAMING UNDER FLOORS (REVERSE FLANGE)				
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
		<input type="checkbox"/> ComfortTherm® Poly-encapsulated Batts with Non-vapor-retarder Facing <i>JM</i> FORMALDEHYDE-FREE™ INSULATION	ComfortTherm Poly-encapsulated Batts are also available with a non-vapor-retarder facing, recommended for hot, humid climates and over existing attic insulation.	FOR WOOD FRAMING		
<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm					
<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm					
<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm					
<input type="checkbox"/> R-11/3½"	<input type="checkbox"/> RSI-1.9/89 mm					
<input type="checkbox"/> EasyFit® Vertically Perforated Batts <i>JM</i> FORMALDEHYDE-FREE™ INSULATION	Pre-cut, perforated batts come in a variety of sizes and R-values for thermal and acoustical use in nonstandard-width cavities. Eliminates time-consuming hand-cutting and enables a faster and easier installation.	EASYFIT KRAFT-FACED FOR WOOD FRAMING			ASTM Standard C665 Type I (Unfaced) Class A Category 2 Type II (Kraft-Faced) Class C Category 1	
		<input type="checkbox"/> R-21/5½"	<input type="checkbox"/> RSI-3.7/140 mm			
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
		<input type="checkbox"/> R-15/3½"	<input type="checkbox"/> RSI-2.6/89 mm			
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm			
		EASYFIT UNFACED FOR WOOD FRAMING				
		<input type="checkbox"/> R-21/5½"	<input type="checkbox"/> RSI-3.7/140 mm			
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm			
<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm					

Materials Provided	Product Description	R-value/Size (thickness, nominal)	RSI-value/Size (thickness, nominal)	Location	Specification Compliance
<input type="checkbox"/> Unfaced Batts JM FORMALDEHYDE-FREE™ INSULATION	Fiber glass insulation for thermal and acoustical applications with no facing. When vapor control is required, a separate vapor retarder, such as 4 mil (0.1 mm) or thicker polyethylene, may be installed. *For sound control in interior walls. **Willows only (12").	FOR METAL FRAMING			ASTM Standard C665 Type I Class A Category II
		<input type="checkbox"/> R-25/8¼"	<input type="checkbox"/> RSI-4.4/210 mm		
		<input type="checkbox"/> R-21/5½"	<input type="checkbox"/> RSI-3.7/140 mm		
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm		
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm		
		<input type="checkbox"/> *R-11/3¾"	<input type="checkbox"/> RSI-1.9/92 mm		
		<input type="checkbox"/> N/A/2¾"	<input type="checkbox"/> N/A/70 mm		
		FOR WOOD FRAMING			
		<input type="checkbox"/> **R-38/13" + 12"	<input type="checkbox"/> RSI-6.7/305 mm + 330 mm		
		<input type="checkbox"/> R-38c/10¼"	<input type="checkbox"/> RSI-6.7/260 mm		
		<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm		
		<input type="checkbox"/> R-30c/8¼"	<input type="checkbox"/> RSI-5.3/210 mm		
		<input type="checkbox"/> R-25/8¼"	<input type="checkbox"/> RSI-4.4/210 mm		
		<input type="checkbox"/> R-22/7½"	<input type="checkbox"/> RSI-3.9/190 mm		
		<input type="checkbox"/> R-21/5½"	<input type="checkbox"/> RSI-3.7/140 mm		
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm		
		<input type="checkbox"/> R-15/3½"	<input type="checkbox"/> RSI-2.6/89 mm		
<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm				
<input type="checkbox"/> R-11/3¾"	<input type="checkbox"/> RSI-1.9/89 mm				
<input type="checkbox"/> Foil-Faced Batts JM FORMALDEHYDE-FREE™ INSULATION	Fiber glass batts for thermal and acoustical applications with a foil/kraft laminate facing. The facing provides a maximum perm rating of 0.05 Grains/hr • ft² • in. Hg (2.9 ng/s • m² • Pa). The foil facing meets ASTM E84 flame/smoke rating of 75/150 or less. It is not for use in exposed applications.	FOR METAL FRAMING			ASTM Standard C665 Type III Class B Category 1
		<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm		
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm		
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm		
		<input type="checkbox"/> R-11/3¾"	<input type="checkbox"/> RSI-1.9/92 mm		
<input type="checkbox"/> Kraft-Faced Batts JM FORMALDEHYDE-FREE™ INSULATION	Fiber glass batts for thermal and acoustical applications faced with a flanged, kraft paper vapor retarder with a maximum perm rating of 1.0 Grains/hr • ft² • in. Hg (57 ng/s • m² • Pa). The kraft facing is flammable and must not be left exposed. *Willows only (12").	FOR METAL FRAMING			ASTM Standard C665 Type II Class C Category 1
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm		
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm		
		<input type="checkbox"/> R-11/3¾"	<input type="checkbox"/> RSI-1.9/92 mm		
		FOR WOOD FRAMING			
		<input type="checkbox"/> *R-38/13" + 12"	<input type="checkbox"/> RSI-6.7/305 mm + 330 mm		
		<input type="checkbox"/> R-38c/10¼"	<input type="checkbox"/> RSI-6.7/260 mm		
		<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm		
		<input type="checkbox"/> R-30c/8¼"	<input type="checkbox"/> RSI-5.3/210 mm		
		<input type="checkbox"/> R-25/8¼"	<input type="checkbox"/> RSI-4.4/216 mm		
		<input type="checkbox"/> R-22/7½"	<input type="checkbox"/> RSI-3.9/191 mm		
		<input type="checkbox"/> R-21/5½"	<input type="checkbox"/> RSI-3.7/140 mm		
		<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm		
		<input type="checkbox"/> R-15/3½"	<input type="checkbox"/> RSI-2.6/89 mm		
		<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm		
		<input type="checkbox"/> R-11/3¾"	<input type="checkbox"/> RSI-1.9/89 mm		
		<input type="checkbox"/> MR® Faced Batts JM FORMALDEHYDE-FREE™ INSULATION	Fiber glass batts for thermal and acoustical applications with a flanged facing treated with an EPA-registered mold inhibitor. This inhibitor protects the insulation against the growth of mold, mildew and fungi. The facing is also a "smart" vapor retarder, so that in extreme humidity, the permeability doubles to allow moisture to escape at a faster rate.		
<input type="checkbox"/> R-30/10¼"	<input type="checkbox"/> RSI-5.3/260 mm				
<input type="checkbox"/> R-19/6½"	<input type="checkbox"/> RSI-3.3/165 mm				
<input type="checkbox"/> R-13/3½"	<input type="checkbox"/> RSI-2.3/89 mm				

Fiber Glass Insulation Products



Materials Provided	Product Description	Installed		Settled Thickness	Bags per 1,000 ft ²	Maximum Net Coverage (ft ² /bag)	Minimum Weight per Square Foot (lb/ft ²)	
		R-value	Thickness					
Climate Pro® Blow-in Insulation <i>JM FORMALDEHYDE-FREE™ INSULATION</i>	Premium unbonded fiber glass blowing wool for pneumatic blowing machine installation in attics.	60	21.4"	21.4"	30.6	33	0.963	
		49	17.8"	17.8"	24.3	41	0.767	
		44	16.2"	16.2"	21.6	46	0.680	
		38	14.2"	14.2"	18.4	54	0.579	
		30	11.4"	11.4"	14.2	70	0.448	
		26	10.0"	10.0"	12.2	82	0.384	
		22	8.5"	8.5"	10.2	98	0.321	
		19	7.4"	7.4"	8.7	114	0.275	
		13	5.2"	5.2"	5.9	170	0.185	
		11	4.4"	4.4"	4.9	202	0.156	
		Climate Pro BIBS® Blow-In-Blanket® System <i>JM FORMALDEHYDE-FREE™ INSULATION</i>	Premium unbonded fiber glass blowing wool for installation in enclosed cavities using the Blow-In-Blanket System (BIBS)* <small>*BIBS and the Blow-In-Blanket System are registered trademarks of Ark-Seal International.</small>	38	9.25" (Nominal 2x10)		56.2	17.8
36				44.1		22.7	1.39	
30	7.25" (Nominal 2x8)				44.1	22.7	1.39	
28					34.5	29.0	1.09	
23	5.50" (Nominal 2x6)				33.4	29.9	1.05	
22					26.2	38.2	0.83	
15	3.50" (Nominal 2x4)				21.3	47.0	0.67	
14					16.7	60.0	0.53	
JM Spider® Spray-in Custom Fiber Glass Insulation <i>JM FORMALDEHYDE-FREE™ INSULATION</i>	Lightweight spray-in fiber glass insulation bound together with a nontoxic, water-soluble adhesive that also binds to cavity surfaces. It completely fills gaps for superior thermal and acoustical performance. It resists mold and mildew, is fast and easy to install, and dries quickly.	23			27.5	36.4	0.83	
		22	5.50" (Nominal 2x6)		21.4	46.8	0.64	
		20			15.3	65.5	0.46	
		15	3.50" (Nominal 2x4)		17.5	57.1	0.53	
		14			13.6	73.5	0.41	
		13			9.7	102.9	0.29	
		Specification Compliance ASTM Standard C1014 ASTM Standard C764 The JM Spider system meets all building code fire test requirements for concealed and exposed insulation.						

Materials Provided	Product Description	R-value/Size (thickness, nominal)	RSI-value/Size (thickness, nominal)	Location	Specification Compliance
Panel Deck FSK-25 Faced Batts <i>JM FORMALDEHYDE-FREE™ INSULATION</i>	Fiber glass batts for thermal and acoustical applications faced with an extended tab, flame-resistant, foil-scrim-kraft laminate facing. Note: Willows only.	R-30/10¼"	RSI-5.3/260 mm		ASTM Standard C665 Type III Class A Category 1
		R-19/6½"	RSI-3.3/165 mm		
Panel Deck PSK-Faced Batts <i>JM FORMALDEHYDE-FREE™ INSULATION</i>	Fiber glass batts for thermal and acoustical applications faced with extended tab, flame-resistant, white, polypropylene-scrim-kraft laminate facing. Note: Willows only.	R-19/6½"	RSI-3.3/165 mm		ASTM Standard C665 Type II Class A Category 1
Basement Wall Insulation <i>JM FORMALDEHYDE-FREE™ INSULATION</i>	Fiber glass blanket, either unfaced or white polypropylene faced, designed to insulate basement or crawl space walls without framing. The faced product with seams taped provides a finished wall surface.	FOR WOOD FRAMING			ASTM Standard C665 Type I Unfaced Category 2 (perforated facing) ASTM Standard C665 Type II, Class A Category 1 (faced) Category 2 (perforated facing)
		R-11/3½" Unfaced			
		R-11/3½" Faced			
		R-11/3½" Perforated Facing			

Materials Provided	Product Description	Location
<input type="checkbox"/> Insul-SHIELD® Insulation	A series of flexible, semi-rigid or rigid fiber glass boards available unfaced or with FSK (foil-scrim-kraft facings), white PSK (polypropylene-scrim-kraft facings) or black mat facings in the density/thermal ranges listed below. Coated black Insul-SHIELD is available in roll form. Because of its rigidity, the insulation can often be used where framing is not present.	

Physical Properties

Product Name	Density		"k" values*		Thickness		R-value*	RSI*	
	lb/ft ³	kg/m ³	$\frac{\text{Btu}\cdot\text{in}}{(\text{hr}\cdot\text{ft}^2\cdot^\circ\text{F})}$	$\frac{\text{W}}{\text{m}\cdot\text{K}}$	inches	mm	$\frac{(\text{hr}\cdot\text{ft}^2\cdot^\circ\text{F})}{\text{Btu}}$	$\text{m}^2\cdot\text{K}/\text{W}$	
I/S 100	1.0	16.0	0.27	0.039	1½	38	5.6	0.99	
I/S 150	1.5	24.0	0.24	0.035	1**	25	4.2	0.74	
					1½**	38	6.3	1.11	
					2**	51	8.3	1.46	
					2½**	64	10.4	1.83	
					3	76	12.5	2.20	
					3½	89	14.6	2.57	
I/S 225	2.25	36.1	0.23	0.033	1**	25	4.3	0.76	
					1½**	38	6.5	1.14	
					2**	51	8.7	1.53	
					2½**	64	10.9	1.92	
					3**	76	13.0	2.29	
					3½	89	15.2	2.68	
I/S 300	3.0	48.1	0.23	0.033	1**	25	4.3	0.76	
					1½**	38	6.5	1.14	
					2**	51	8.7	1.53	
					2½**	64	10.9	1.92	
					3**	76	13.0	2.29	
					3½	89	15.2	2.68	
I/S 600	6.0	96.1	0.22	0.032	1**	25	4.5	0.79	
					1½**	38	6.8	1.20	
					2**	51	9.1	1.60	
I/S Coated Black			0.25	0.036	1	25	4.0	0.70	
					2	51	8.0	1.41	

*Thermal properties per ASTM C518.

**Black Mat Insul-SHIELD available for these thicknesses only. Other thicknesses available by special order and subject to minimums.

Specification Compliance[†]

Type	I/S 100	I/S 150	I/S 225	I/S 300	I/S 600	I/S Coated Black
ASTM C612, Type IA, Category 1 ^{††}	X	X	X	X	X	X
ASTM C612, Type IB, Category 1 ^{††}		X	X	X	X	
ASTM C612, Type IB, Category 2 ^{††}				X	X	
ASTM C553, Type I and II ^{††}	X	X				
ASTM C665, Type I ^{††}	X	X				
ASTM C665, Type III, Class A, Category 1 ^{††}	X					
ASTM E136 (Noncombustible)	X	X	X	X		
ASTM E84 (Flame/Smoke 25/50 or less)	X	X	X	X	X	X

[†]When ordering material under a government specification that requires specific lot testing and certification of compliance prior to shipment, this must be requested on the purchase order. There may be additional charges for specification compliance testing.

^{††}Not tested for use at elevated temperatures.

Foam Sheathing Insulation Products



Materials Provided	Product Description	R-value/Size (thickness, nominal)	Location	Specification Compliance
AP™ Foil-Faced Polyisocyanurate Foam Sheathing	Rigid foam sheathing insulation for non-exposed uses in commercial and residential construction. Composed of a polyisocyanurate foam core bonded on each side to foil laminate facers.	R-22.8/3½"		ASTM C1289 Type I Class 1 ASTM Test Method C518 at 75°F
		R-19.5/3"		
		R-16.3/2½"		
		R-13.0/2"		
		R-9.8/1½"		
		R-6.5/1"		
		R-4.9/¾"		
		R-4.1/¾"		
NailBoard® Insulation	Rigid roof insulation composed of a polyisocyanurate foam core attached to 7/16" or 5/8" OSB on one side and fiber glass reinforced facer on the other.	Includes 7/16" OSB:		ASTM C1289 Type V F.S. HH-I-1972/GEN HH-I-1972/2 ASTM Test Method C518 at 75°F
		R-22.6/4"		
		R-19.4/3½"		
		R-16.2/3"		
		R-13/2½"		
		R-9.9/2"		
		R-6.8/1½"		

Spray Foam Insulation Products

Materials Provided	Product Description	R-value/Size (thickness, nominal)	RSI-value/Size (thickness, nominal)	Location	Specification Compliance
JM Corbond III® SPF	Closed-cell spray polyurethane foam (SPF) is dense, durable insulation that provides superior thermal and air isolation performance, while strengthening the structure of buildings.				AC377 NFPA 285 ASTM E2357 ABAA (evaluated and listed material and assembly)
JM Corbond MCS™ SPF	JM Corbond Multi-Climate Solution (MCS) SPF provides superior thermal, air and moisture isolation.				AC377 NFPA 285
JM Open-cell Spray Foam (JM ocSPF)	Open-cell spray polyurethane foam is low-density, nonstructural insulation that offers a high yield while still providing good thermal and acoustical performance and good air isolation.				AC377

Other Building Products

Materials Provided	Product Description	Size	Location	Specification Compliance
Vent Chute	Rigid foam channel that creates a ventilation space between the roof deck and insulation to relieve heat and moisture buildup in the attic.	Perforated for 16" o.c. joists (48" x 11" channel) or 24" o.c. joists (48" x 22" channel)		

FIRE SAFETY

Johns Manville Fiber Glass Building Insulation, without facing, has been tested in accordance with ASTM E84 and has a flame spread rating of less than 25 and a smoke developed rating of less than 50. UL Label File R-3711 available upon request, documenting a Fire Hazard Classification rating of 25/50 or less. Unfaced fiber glass insulation has passed the ASTM E136 test and is therefore considered noncombustible by the major building codes.

When provided with a standard vapor retarder, the composite product cannot be classified as "noncombustible" as defined in most building codes. Vapor retarders (unless Class A rated) will burn and must not be left exposed. They must be covered with gypsum board or other code-approved materials and installed in compliance with all building codes. To prevent a fire, keep open flames and other sources of heat away from the facing.

Faced insulations listed as ASTM C665, Class A have achieved a flame spread rating of 25 or less, and a smoke developed rating of 50 or less per ASTM E84 test method. (See additional information in "Guide Specifications" section of this form.)

Guide Specifications for Johns Manville Fiber Glass Thermal and Acoustical Insulations

Note to the specifier: Delete sections not used; fill in correct selections where indicated; and/or add other information as required.

Specifications apply to wall, ceiling and/or floor insulation, both thermal and acoustical, except where noted.

Insulation materials meet the Insulation Quality Standards of the State of California and the Minnesota Thermal Insulation Standards.

I. SCOPE

A. The general conditions in Division 1 of this specification form an integral part of the contract for the work specified in this section and all conditions contained therein shall be binding upon the contractor and shall govern the work.

B. No substitution will be permitted for materials and methods covered in this section.

II. WORK INCLUDED

A. The work under this section of the specifications shall include furnishing all supervision, labor, materials, tools and equipment, and performing all operations necessary for the complete insulation system as described in the drawings and specifications in a first-class, workmanlike manner.

III. GENERAL REQUIREMENTS

A. All materials must be delivered in original unopened packages with manufacturer's name and contents legibly indicated. Store insulation indoors. Keep insulation clean and dry at all times. When transporting, cover completely with a waterproof tarpaulin as necessary.

B. All work, by other trades, to be concealed by insulation must be inspected and approved by those having jurisdiction; execution of the insulation installation shall not proceed until so authorized.

IV. MATERIALS [REPEAT FOR EACH LOCATION] THERMAL-ACOUSTICAL INSULATION

A. Insulation for [location: ceilings, walls, floors, etc.] shall be Johns Manville Formaldehyde-free^{***} fiber glass insulation [Unfaced, Kraft-Faced, MR[®] Faced, ComfortTherm[®], Climate Pro[®], JM Spider[®], FSK-25 flame-resistant foil-faced, Foil-faced or Insul-SHIELD[®]] in roll, batt, board or loose-fill form, [thickness] thick, R-value^{**} [specify].

* Strike "Formaldehyde-free"^{***} if specifying Insul-SHIELD.

** 2 3/4" sound-control batts do not carry an R-value.

V. INSTALLATION

Note: The following apply to both thermal and acoustical applications *except* for B and C, which apply to thermal applications only.

A. Installation of the insulation shall be in accordance with the applicable building code, industry standards and any specific instructions on the product package.

B. Insulation shall fit all framing spaces, including areas between joists and outside headers, behind electrical outlets and piping, and other areas, to form a complete insulating blanket around the heated or cooled areas of the structure.

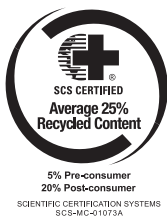
C. In colder climate areas, vapor retarders (whether attached to the insulation or applied separately) are often placed toward the heated or conditioned side of the wall. This is done to reduce water vapor penetration into the wall from the building interior. Conversely, in predominately hot, humid climates local practices often call for placing the vapor retarder toward the outside of the wall cavity or omitting the vapor retarder. Check your local building codes for vapor retarder requirements.

D. Standard kraft and standard foil facings are combustible and must not be left exposed. Where exposed application is desirable and permitted by applicable codes, FSK-25 flame-resistant facing must be used[†].

E. Insulation should not be installed over or within 3" (76 mm) of fixtures containing lights, fans or other heat-generating electrical devices. Baffles should be used to maintain these clearances. Failure to do so may result in damage to these devices. To determine insulation clearance requirements, local building code requirements must be followed. IC-rated light fixtures may be covered with insulation.

Metal flues from furnaces, hot water tanks, etc., and some types of chimneys require 1" (25 mm) or more clearance from combustible materials. Some may require clearance from noncombustible materials (per ASTM E136) like unfaced fiber glass insulation. Equipment and appliance manufacturers' instructions and local building codes shall be consulted for specific insulation clearance requirements.

[†] Johns Manville Fiber Glass Building Insulations, exclusive of facings, have passed the ASTM E136 test. Products that pass this test are considered noncombustible by the major building codes.



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 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 on this page.



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