



Johns Manville offers one of the industry's broadest ranges of insulation solutions including fiberglass, mineral wool, blowing wool, polyiso and spray foam.

Submitted To: \_\_\_\_\_

Submitted By: \_\_\_\_\_ Date: \_\_\_\_\_

Job Reference: \_\_\_\_\_

Job Name: \_\_\_\_\_

Address: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

## FIBERGLASS INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	R-VALUE/SIZE (thickness, nominal)	RSI-VALUE/SIZE (thickness, nominal)	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE
<input type="checkbox"/> UNFACED BATTS	Fiberglass insulation for thermal and acoustical applications with no facing.	<b>FOR METAL FRAMING</b>			ASTM C665, Type I ASTM E136 UL File BKNV.R3711 UL BZJZ.R3711
		<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm		
		<input type="checkbox"/> R-25 / 8.25"	RSI-4.4 / 210 mm		
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm		
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm		
		<input type="checkbox"/> R-15 / 3.5"	RSI-2.6 / 89 mm		
		<input type="checkbox"/> R-13 / 3.625"	RSI-2.3 / 92 mm		
		<input type="checkbox"/> R-11 / 3.625"	RSI-1.9 / 92 mm		
		<b>FOR WOOD FRAMING</b>			
		<input type="checkbox"/> R-49 / 13.5"	RSI 8.6 / 343 mm		
		<input type="checkbox"/> R-38 / 12.5"	RSI-6.7 / 318 mm		
		<input type="checkbox"/> R-38 / 12"	RSI-6.7 / 305 mm		
		<input type="checkbox"/> R-38c / 10.25"	RSI-6.7 / 260 mm		
		<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm		
		<input type="checkbox"/> R-30c / 8.25"	RSI-5.3 / 210 mm		
		<input type="checkbox"/> R-25 / 8.25"	RSI-4.4 / 210 mm		
		<input type="checkbox"/> R-23 / 5.5"	RSI-4.1 / 140 mm		
		<input type="checkbox"/> R-22 / 7.5"	RSI-3.9 / 191 mm		
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm		
		<input type="checkbox"/> R-20 / 5.5"	RSI-3.5 / 140 mm		
<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm				
<input type="checkbox"/> R-15 / 3.5"	RSI-2.6 / 89 mm				
<input type="checkbox"/> R-13 / 3.5"	RSI-2.3 / 89 mm				
<input type="checkbox"/> R-11 / 3.5"	RSI-1.9 / 89 mm				
<input type="checkbox"/> FOIL-FACED BATTS	Fiberglass batts for thermal and acoustical applications with a foil/kraft laminate facing.	<b>FOR METAL FRAMING</b>			ASTM C665, Type III, Class B, Category I
		<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm		
		<input type="checkbox"/> R-13 / 3.625"	RSI-2.3 / 92 mm		
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm		
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm		
		<input type="checkbox"/> R-11 / 3.625"	RSI-1.9 / 92 mm		
<input type="checkbox"/> KRAFT-FACED BATTS	Fiberglass batts for thermal and acoustical applications faced with a flanged, kraft paper vapor retarder.  *Tabless	<b>FOR METAL FRAMING</b>			ASTM C665, Type II, Class C, Category I
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm		
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm		
		<input type="checkbox"/> R-15 / 3.5"	RSI-2.6 / 89mm		
		<input type="checkbox"/> R-13 / 3.625"	RSI-2.3 / 92mm		
		<input type="checkbox"/> R-11 / 3.625"	RSI-1.9 / 92 mm		
		<b>FOR WOOD FRAMING</b>			
		<input type="checkbox"/> R-49 / 13.5"	RSI-8.6 / 343 mm		
		<input type="checkbox"/> R-38 / 12.5"	RSI-6.7 / 318 mm		
		<input type="checkbox"/> R-38 / 12"	RSI-6.7 / 305 mm		
		<input type="checkbox"/> R-38c / 10.25"	RSI-6.7 / 260 mm		
		<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm		
		<input type="checkbox"/> R-30c / 8.25"	RSI-5.3 / 210 mm		
		<input type="checkbox"/> R-25 / 8.25"	RSI-4.4 / 210 mm		
		<input type="checkbox"/> R-23 / 5.5"	RSI-4.1 / 140 mm		
		<input type="checkbox"/> *R-23 / 5.5"	RSI-4.1 / 140 mm		
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm		
		<input type="checkbox"/> *R-21 / 5.5"	RSI-3.7 / 140 mm		
		<input type="checkbox"/> R-20 / 5.5"	RSI-3.5 / 140 mm		
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm		
<input type="checkbox"/> *R-19 / 6.5"	RSI-3.4 / 165 mm				
<input type="checkbox"/> R-15 / 3.5"	RSI-2.6 / 89 mm				
<input type="checkbox"/> *R-15 / 3.5"	RSI-2.6 / 89 mm				
<input type="checkbox"/> R-13 / 3.5"	RSI-2.3 / 89 mm				
<input type="checkbox"/> *R-13 / 3.5"	RSI-2.3 / 89 mm				
<input type="checkbox"/> R-11 / 3.5"	RSI-1.9 / 89 mm				

## FIBERGLASS INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	R-VALUE/SIZE (thickness, nominal)	RSI-VALUE/SIZE (thickness, nominal)	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE	
<input type="checkbox"/> <b>FSK-25 FACED BATTS</b>	Fiberglass batts for thermal and acoustical applications faced with a flame-resistant, foil-scrim-kraft laminate.  *Extended tab	<b>FOR METAL FRAMING</b>		<input type="checkbox"/>          <input type="checkbox"/>	ASTM C665, Type III, Class A, Category I UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> R-38 / 12"	RSI-6.7 / 318 mm			
		<input type="checkbox"/> *R-38 / 12.5"	RSI-6.7 / 318 mm			
		<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm			
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm			
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm			
		<input type="checkbox"/> R-13 / 3.625"	RSI-2.3 / 92 mm			
		<input type="checkbox"/> R-11 / 3.625"	RSI-1.9 / 92 mm			
		<b>FOR WOOD FRAMING</b>				<input type="checkbox"/> <input type="checkbox"/>
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm			
<input type="checkbox"/> R-19 / 6.5"	RSI-3.5 / 165 mm					
<input type="checkbox"/> <b>COMFORTTHERM® POLY-ENCAPSULATED BATTS</b>  <input type="checkbox"/> <b>WITHOUT VAPOR-RETARDER FACING</b>	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.	<b>FOR METAL FRAMING</b>		<input type="checkbox"/>    <input type="checkbox"/>	ASTM, C665 Type II, Class A, Category 1 (non-perforated surface) and Category II (perforated) UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm			
		<b>FOR WOOD FRAMING</b>				<input type="checkbox"/>    <input type="checkbox"/>
		<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm			
		<input type="checkbox"/> R-21 / 5.5"	RSI-3.7 / 140 mm			
<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm					
<input type="checkbox"/> R-13 / 3.5"	RSI-2.3 / 89 mm					
<input type="checkbox"/> <b>PANEL DECK FSK-25 FACED BATTS</b>	Fiberglass batts for thermal and acoustical applications faced with an extended tab, flame-resistant, foil-scrim-kraft laminate facing.	<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm	<input type="checkbox"/> <input type="checkbox"/>	ASTM C665 Type III, Class A, Category 1 UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm			
<input type="checkbox"/> <b>PANEL DECK PSK-FACED BATTS</b>	Fiberglass batts for thermal and acoustical applications faced with extended tab, flame-resistant, white, polypropylene scrim-kraft laminate facing.	<input type="checkbox"/> R-30 / 10.25"	RSI-5.3 / 260 mm	<input type="checkbox"/> <input type="checkbox"/>	ASTM C665 Type II, Class A, Category 1 UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> R-19 / 6.25"	RSI-3.4 / 159 mm			
<input type="checkbox"/> <b>BASEMENT WALL INSULATION</b>	Fiberglass 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.	<b>FOR WOOD FRAMING</b>		<input type="checkbox"/>   <input type="checkbox"/>	ASTM C665, Type I ASTM C665, Type II, Class A, Category I ASTM C665, Type II, Class A, Category II ASTM E84, Class A ASTM E136 ASTM E96 UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm			
		<input type="checkbox"/> R-11 / 3.5"	RSI-1.9 / 89 mm			
<input type="checkbox"/> <b>POST-FRAME FACED INSULATION</b>	Fiberglass blanket with facing designed to insulate post frame buildings.	<b>FOR WOOD FRAMING</b>		<input type="checkbox"/> <input type="checkbox"/>	ASTM C665, Type I ASTM C665, Type II, Class A, Category I ASTM C665, Type II, Class A, Category II ASTM E84, Class A ASTM E136 ASTM E96 UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> R-19 / 6.5"	RSI-3.4 / 165 mm			
<input type="checkbox"/> <b>UNFACED CAVITY-SHIELD™ CONCEALED-SPACE BATTS</b>	Battis are made of long, resilient glass fibers bonded with a thermosetting resin. Provide NFPA 13 compliant passive fire protection in lieu of sprinklers for horizontal floor-ceiling cavities.	<b>FOR WOOD FRAMING</b>		<input type="checkbox"/>    <input type="checkbox"/>	ASTM C665, Type I ASTM E136 UL File BKNV.R3711 UL BZJZ.R3711	
		<input type="checkbox"/> 8"	203 mm			
		<input type="checkbox"/> 10"	254 mm			
		<input type="checkbox"/> 12"	305 mm			

## FIBERGLASS INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	INSTALLATION LOCATION
INSUL-SHIELD® UNFACED	A series of flexible, semi-rigid or rigid fiberglass boards available unfaced or with FSK (foil-scrim-kraft facings), ASJ (all-service jacket) 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.	
INSUL-SHIELD® FSK		
INSUL-SHIELD® ASJ		
INSUL-SHIELD® BLACK-FACED ROLLS		
INSUL-SHIELD® PSK		

### Physical Properties

Product Name	Density		"k" values*		Thickness		R-value*	RSI*
	lb/ft <sup>3</sup>	kg/m <sup>3</sup>	Btu•in / (hr•ft <sup>2</sup> •F)	W / m•K	inches	mm	(hr•ft <sup>2</sup> •°F) / Btu	m <sup>2</sup> •K/W
I/S 300	3.0	48.1	0.23	0.033	1	25	4.3	0.76
					1.5	38	6.5	1.14
					2	51	8.7	1.53
					2.5	64	10.9	1.92
					3	76	13.0	2.29
I/S 600	6.0	96.1	0.22	0.032	1.5	38	6.8	1.20
					2	51	9.1	1.60
I/S Black-Faced Rolls	1.5	24.0	0.25	0.036	1	25	4.2	0.74
					2	51	8.0	1.41

\*Thermal properties per ASTM C518.

### Specification Compliance<sup>†</sup>

Type	I/S 150	I/S 300	I/S 600	I/S Coated Black
ASTM C612, Type IA, Category 1 <sup>††</sup>	X	X	X	X
ASTM C612, Type IB, Category 1 <sup>††</sup>		X	X	
ASTM C612, Type IB, Category 2 <sup>††</sup>		X	X	
ASTM C553, Type I, II <sup>††</sup> , and III	X			X
ASTM C665, Type I <sup>††</sup>	X			
ASTM C665, Type III, Class A, Category 1 <sup>††</sup>	X			
ASTM E136 (Noncombustible)	X	X		
ASTM E84, Class A	X	X	X	X

<sup>†</sup>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.

<sup>††</sup>Not tested for use at elevated temperatures.

## FIBERGLASS INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	R-VALUE	INSTALLED THICKNESS	SETTLED THICKNESS	BAGS PER 1,000 FT <sup>2</sup>	MAXIMUM NET COVERAGE (FT <sup>2</sup> )	MINIMUM WEIGHT PER SQUARE FOOT			
<input type="checkbox"/> <b>CLIMATE PRO® B7700 BLOW-IN INSULATION</b>	Premium unbonded fiberglass blowing wool for pneumatic blowing machine installation in attics.  <b>Specification Compliance</b> ASTM C764, Type I ASTM E84, Class A ASTM E136 ASTM E970 ASTM C1104 ASTM C1304 ASTM C1338	11	4.25"	4.25"	4.6	215.9	0.15			
		13	5.00"	5.00"	5.5	181.3	0.17			
		19	7.00"	7.00"	8.0	125.4	0.25			
		22	8.00"	8.00"	9.3	108.0	0.29			
		26	9.50"	9.50"	11.2	88.9	0.35			
		30	10.75"	10.75"	13.0	77.1	0.41			
		38	13.50"	13.50"	17.0	59.0	0.53			
		44	15.25"	15.25"	19.6	50.9	0.62			
		49	17.00"	17.00"	22.4	44.6	0.71			
		60	20.25"	20.25"	27.9	35.8	0.88			
		<input type="checkbox"/> <b>CLIMATE PRO® B7700 CAVITY WALL (SIDEWALL)</b>	Premium unbonded fiberglass blowing wool for pneumatic blowing machine installation in cavity walls (sidewalls).	14	3.5"	1.20	90.0	0.350		
15	3.5"			1.45	74.5	0.438				
15	3.5"			1.50	72.0	0.438				
22	5.5"			1.20	57.3	0.550				
23	5.5"			1.35	50.9	0.642				
23	5.5"			1.40	49.1	0.642				
24	5.5"			1.75	39.3	0.825				
24	5.5"			1.80	38.2	0.825				
31	7.25"			1.60	32.6	0.967				
39	9.25"			1.50	27.2	1.156				
40	9.25"			1.80	22.7	1.388				
<input type="checkbox"/> <b>JM SPIDER® PLUS SPRAY-IN CUSTOM FIBERGLASS INSULATION</b>	Johns Manville Spider® Plus fiberglass blow-in insulation, now featuring interlocking fiber technology, is the next evolution of the JM Formaldehyde-free™ insulation family. Interlocking fiber technology allows the fibers to spring and lock into cavities with no adhesive or netting.  <b>Specification Compliance</b> ASTM Standard C1104/C1104M ASTM Standard C764 ASTM E84, Class A ASTM E136 ASTM C1338 ASTM E970 ASTM G21 ASTM C518 ASTM C1304 The JM Spider system meets all building code fire test requirements for concealed and exposed insulation.	<b>FOR WOOD FRAMING</b>		<b>MINIMUM INSTALLED DENSITY LB/FT<sup>3</sup></b>  <b>MINIMUM MASS PER UNIT AREA LB/FT<sup>2</sup></b>  <b>MAXIMUM NET COVERAGE FT<sup>2</sup>/BAG</b>  <b>MINIMUM BAG USAGE PER 1000 FT<sup>2</sup></b>	<b>R-VALUE</b>  <b>CAVITY DEPTH</b>  <b>MAXIMUM NET COVERAGE FT<sup>2</sup>/BAG</b>  <b>MINIMUM BAG USAGE PER 1000 FT<sup>2</sup></b>					
		14	3.5"			1.5	0.44	68.6	14.6	
		15	3.5"			1.8	0.53	57.1	17.5	
		22	5.5"			1.5	0.69	43.6	22.9	
		23	5.5"			1.8	0.83	36.4	27.5	
		29	7.25"			1.5	0.91	33.1	30.2	
		30	7.25"			1.8	1.09	27.6	36.3	
		37	9.25"			1.5	1.16	25.9	38.5	
		38	9.25"			1.8	1.39	21.6	46.3	
		45	11.25"			1.5	1.41	21.3	46.9	
		47	11.25"			1.8	1.69	17.8	56.3	
		<b>FOR METAL FRAMING, PURLINS, ENGINEERED LUMBER ETC.</b>				<b>R-VALUE</b>  <b>CAVITY DEPTH</b>  <b>MAXIMUM NET COVERAGE FT<sup>2</sup>/BAG</b>  <b>MINIMUM BAG USAGE PER 1000 FT<sup>2</sup></b>				
		16	4.0"				1.5	0.50	60.0	16.7
		17	4.0"				1.8	0.60	50.0	20.0
		24	6.0"				1.5	0.75	40.0	25.0
		25	6.0"				1.8	0.90	33.3	30.0
		32	8.0"				1.5	1.00	30.0	33.3
		33	8.0"				1.8	1.20	25.0	40.0
		40	10.0"				1.5	1.25	24.0	41.7
		41	10.0"				1.8	1.50	20.0	50.0
		48	12.0"			1.5	1.50	20.0	50.0	
50	12.0"	1.8	1.80	16.7	60.0					

## MINERAL WOOL INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	THICKNESS	NOMINAL DENSITY	WIDTH x LENGTH	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE
<input type="checkbox"/> <b>MINWOOL® SOUND ATTENUATION FIRE BATTS (SAFB)</b>	Mineral wool batt designed to deliver noise control in metal stud wall cavities of interior or exterior walls, or above suspended ceilings	<input type="checkbox"/> 1.5" (38 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		ASTM C665 Type 1 ASTM C1104 ASTM C1338 ASTM E84, Class A ASTM E136
		<input type="checkbox"/> 1.5" (38 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 2" (51 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 2" (51 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 2.5" (64 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 2.5" (64 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 3" (76 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 3" (76 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 3.5" (89 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 3.5" (89 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 4" (102 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 4" (102 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 4.5" (114 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 4.5" (114 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 5" (127 mm)		<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)		
		<input type="checkbox"/> 5" (127 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
<input type="checkbox"/> 5.5" (140 mm)	<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)					
<input type="checkbox"/> 5.5" (140 mm)	<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)					
<input type="checkbox"/> 6" (152 mm)	<input type="checkbox"/> 16" x 48" (406 mm x 1219 mm)					
<input type="checkbox"/> 6" (152 mm)	<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)					
<input type="checkbox"/> <b>MINWOOL® CURTAINWALL 40   80</b>	A mineral wool board designed to provide superior fire resistance and thermal properties in glass, metal, and masonry curtainwall spandrel systems. Available in 2 densities, Curtainwall 40 (4.0 pcf) and Curtainwall 80 (8.0 pcf).	<input type="checkbox"/> 1.5" (38 mm)	<input type="checkbox"/> 4.0 pcf (64 kg/m <sup>3</sup> )	<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		ASTM C423 ASTM C612 ASTM C665 ASTM C1104 ASTM C1338 ASTM E84, Class A ASTM E96 ASTM E136
		<input type="checkbox"/> 2" (51 mm)	<input type="checkbox"/> 8.0 pcf (128 kg/m <sup>3</sup> )	<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		
		<input type="checkbox"/> 2.5" (64 mm)				
		<input type="checkbox"/> 3" (76 mm)				
		<input type="checkbox"/> 4" (102 mm)				
	Custom Size: *FSP Faced Curtain Wall Only					
<input type="checkbox"/> <b>MINWOOL® WINDOW WALL</b>	Lightweight, flexible, sound absorbing and fire-resistant mineral wool batts.	<input type="checkbox"/> 1.5" (38 mm)				ASTM C612 ASTM E84 ASTM C665 ASTM C1104 ASTM C1338 ASTM E84, Class A ASTM C411 ASTM E136
		<input type="checkbox"/> 2" (51 mm)				
		<input type="checkbox"/> 2.5" (64 mm)				
		<input type="checkbox"/> 3" (76 mm)				
		<input type="checkbox"/> 4" (102 mm)				
	Custom Size:					
<input type="checkbox"/> <b>MINWOOL® SAFING</b>	Safing is designed to prevent the passage of smoke and flame in fire rated systems in ducts, joints, penetrations and between the spandrel panel and floor slabs in curtainwall systems.	<input type="checkbox"/> 4.00" (102 mm)		<input type="checkbox"/> 24" x 48" (610 mm x 1219 mm)		ASTM C612 ASTM E814 ASTM C665 ASTM C1104 ASTM C1338 ASTM E84, Class A ASTM E96 ASTM E136
<input type="checkbox"/> <b>TEMPCONTROL®</b>	Mineral Wool batts designed to deliver thermal control in wood-stud cavities of exterior walls, basements, and heated crawl spaces.	<input type="checkbox"/> R-15 / 3.5" (89 mm)		<input type="checkbox"/> 15.25" x 47" (387 mm x 1194 mm)		ASTM C665 Type 1 ASTM E136 ASTM E84, Class A ASTM C518 ASTM E970 ASTM C1104 ASTM C1304 ASTM C665 ASTM C1338
		<input type="checkbox"/> R-15 / 3.5" (89 mm)		<input type="checkbox"/> 23" x 47" (584 mm x 1194 mm)		
		<input type="checkbox"/> R-23 / 5.5" (140 mm)		<input type="checkbox"/> 15.25" x 47" (387 mm x 1194 mm)		
		<input type="checkbox"/> R-23 / 5.5" (140 mm)		<input type="checkbox"/> 23" x 47" (584 mm x 1194 mm)		
		<input type="checkbox"/> R-30 / 7.25" (184 mm)		<input type="checkbox"/> 15.25" x 47" (387 mm x 1194 mm)		
		<input type="checkbox"/> R-30 / 7.25" (184 mm)		<input type="checkbox"/> 23" x 47" (584 mm x 1194 mm)		
<input type="checkbox"/> <b>SOUND &amp; FIRE BLOCK®</b>	Mineral Wool batts designed to deliver noise control in wood stud cavities of interior walls and ceilings between floors.	<input type="checkbox"/> 3" (76 mm)		<input type="checkbox"/> 15.25" x 47" (387 mm x 1194 mm)		ASTM E90 ASTM E84, Class A ASTM E970 ASTM E136 ASTM C1104 ASTM C1304 ASTM C665 ASTM C1338

## MINERAL WOOL INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	THICKNESS	ACTUAL DENSITY	WIDTH x LENGTH	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE
<b>CLADSTONE™ WATER &amp; FIRE BLOCK</b> 45   60   80   110	Mineral wool rigid board designed for thermal and moisture control outside of the building envelope. Available in 4 densities, CladStone 45 (4.5pcf), CladStone 60 (6.0 pcf), CladStone 80 (8.0 pcf) and CladStone 110 (11.0 pcf).	1" (25 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		ASTM C665 ASTM C612 ASTM E136 ASTM E96 ASTM E84, Class A ASTM C1104 ASTM C356 ASTM C1335
		1.5" (38 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		1.5" (38 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		2" (51 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		2" (51 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		2.5" (64 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		2.5" (64 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		3" (76 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		3" (76 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		3.5" (89 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		3.5" (89 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		4" (102 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		4" (102 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		4.5" (114 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		4.5" (114 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		5" (127 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		5" (127 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		5.5" (140 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		5.5" (140 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		6" (152 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		6" (152 mm)	4.5 pcf (72 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		1" (25 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		1.5" (38 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		1.5" (38 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		2" (51 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		2" (51 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		2.5" (64 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		2.5" (64 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		3" (76 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		3" (76 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		3.5" (89 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		3.5" (89 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		4" (102 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		4" (102 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		4.5" (114 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		4.5" (114 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		5" (127 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		5" (127 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		5.5" (140 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		5.5" (140 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		6" (152 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	16" x 48" (406 mm x 1219 mm)		
		6" (152 mm)	6.0 pcf (96 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		1" (25 mm)	8.0 pcf (128 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		2" (51 mm)	8.0 pcf (128 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		3" (76 mm)	8.0 pcf (128 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
		1" (25 mm)	11.0 pcf (176 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)		
2" (51 mm)	11.0 pcf (176 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)				
3" (76 mm)	11.0 pcf (176 kg/m <sup>3</sup> )	24" x 48" (610 mm x 1219 mm)				

## FOAM SHEATHING INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	R-VALUE/SIZE (thickness, nominal)	RSI-VALUE/SIZE (thickness, nominal)	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE
<input type="checkbox"/> <b>AP™ FOIL-FACED POLYISOCYANURATE FOAM SHEATHING</b>	Rigid foam sheathing insulation for concealed use in commercial and residential construction. Comprised of a polyisocyanurate foam core bonded on each side to foil laminate facers.	<input type="checkbox"/> R-2.9 / 0.5"	RSI-0.50 / 13 mm		ASTM C1289 Type 1 Class 1,2 ICC-ESR-3398
		<input type="checkbox"/> R-3.5 / 0.62"	RSI-0.62 / 16 mm		
		<input type="checkbox"/> R-5 / 0.75	RSI-0.88 / 19 mm		
		<input type="checkbox"/> R-6.0 / 1"	RSI-1.06 / 25 mm		
		<input type="checkbox"/> R-7.5 / 1.2"	RSI-1.32 / 31 mm		
		<input type="checkbox"/> R-9.3 / 1.5"	RSI-1.63 / 38 mm		
		<input type="checkbox"/> R-10 / 1.65"	RSI 1.82 / 42 mm		
		<input type="checkbox"/> R-13 / 2"	RSI-2.21 / 51 mm		
		<input type="checkbox"/> R-16 / 2.5"	RSI-2.79 / 64 mm		
		<input type="checkbox"/> R-19 / 3"	RSI-3.36 / 76 mm		
		<input type="checkbox"/> R-22 / 3.5"	RSI-3.94 / 89 mm		
		<input type="checkbox"/> R-26 / 4"	RSI-4.52 / 102 mm		
		<input type="checkbox"/> R-28 / 4.5"	RSI-5.09 / 114 mm		
<input type="checkbox"/> Custom Size: AP Foil Tape					
<input type="checkbox"/> <b>CI MAX® WHITE</b>	High efficiency rigid foam sheathing designed for exposed interior applications. Comprised of a uniform closed-cell polyisocyanurate foam core bonded on each side to glass-mat-reinforced 1.5 mil embossed aluminum facers with white finish on one side.	<input type="checkbox"/> R-2.9 / 0.5"	RSI-0.50 / 13 mm		ASTM C1289 Type 1 Class 1 ICC- ESR-3398
		<input type="checkbox"/> R-4.5 / 0.77"	RSI-0.79 / 20 mm		
		<input type="checkbox"/> R-6.0 / 1"	RSI-1.06 / 25 mm		
		<input type="checkbox"/> R-9.3 / 1.5"	RSI-1.64 / 38 mm		
		<input type="checkbox"/> R-10 / 1.65"	RSI-1.81 / 42 mm		
		<input type="checkbox"/> R-13 / 2"	RSI-2.21 / 51 mm		
		<input type="checkbox"/> R-16 / 2.5"	RSI-2.79 / 64 mm		
		<input type="checkbox"/> R-19 / 3"	RSI-3.36 / 76 mm		
		<input type="checkbox"/> R-22 / 3.5"	RSI-3.94 / 89 mm		
		<input type="checkbox"/> R-26 / 4"	RSI-4.52 / 102 mm		
<input type="checkbox"/> Custom Size:					
<input type="checkbox"/> <b>CI MAX® SILVER</b>	High efficiency rigid foam sheathing designed for exposed interior applications. Comprised of a uniform closed-cell polyisocyanurate foam core bonded on each side to glass-mat-reinforced 1.5 mil embossed aluminum facers with silver finish.	<input type="checkbox"/> R-2.9 / 0.5"	RSI-0.50 / 13 mm		ASTM C1289 Type 1 Class 1 ICC- ESR-3398
		<input type="checkbox"/> R-4.5 / 0.77"	RSI-0.79 / 20 mm		
		<input type="checkbox"/> R-6.0 / 1"	RSI-1.06 / 25 mm		
		<input type="checkbox"/> R-9.3 / 1.5"	RSI-1.64 / 38 mm		
		<input type="checkbox"/> R-10 / 1.65"	RSI-1.81 / 42 mm		
		<input type="checkbox"/> R-13 / 2"	RSI-2.21 / 51 mm		
		<input type="checkbox"/> R-16 / 2.5"	RSI-2.79 / 64 mm		
		<input type="checkbox"/> R-19 / 3"	RSI-3.36 / 76 mm		
		<input type="checkbox"/> R-22 / 3.5"	RSI-3.94 / 89 mm		
		<input type="checkbox"/> R-26 / 4"	RSI-4.52 / 102 mm		
<input type="checkbox"/> Custom Size:					
<input type="checkbox"/> <b>NAILBOARD™ INSULATION</b>	Rigid roof insulation comprised of a polyisocyanurate foam core attached to 7/16" OSB on one side and fiberglass reinforced facer on the other.	<input type="checkbox"/> R-6.8 / 1.5"			ASTM C1289, Type V ASTM C209, ASTM D1621 ASTM D2126, ASTM C209 ASTM D1623, ASTM E84 FM® Standards 4450/4470 UL® Standard 790, 263 and 1256 California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1341 Miami Dade
		<input type="checkbox"/> R-9.9 / 2"			
		<input type="checkbox"/> R-13 / 2.5"			
		<input type="checkbox"/> R-16.2 / 3"			
		<input type="checkbox"/> R-19.4 / 3.5"			
		<input type="checkbox"/> R-22.6 / 4"			
<input type="checkbox"/> <b>R-PANEL</b>	Rigid board used above the roof deck to provide high thermal efficiency.	<input type="checkbox"/> R-5.7 / 1"			ASTM C 1289, Type II, Class 1, Grade 2
		<input type="checkbox"/> R-8.6 / 1.5"			
		<input type="checkbox"/> R-9.7 / 1.70"			
		<input type="checkbox"/> R-11.4 / 2"			
		<input type="checkbox"/> R-14.4 / 2.5"			
		<input type="checkbox"/> R-17.4 / 3"			
		<input type="checkbox"/> R-20.5 / 3.5"			
		<input type="checkbox"/> R-23.6 / 4"			



## SPRAY POLYURETHANE FOAM INSULATION PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	R-VALUE/SIZE (thickness, nominal) US FORMULA	RSI-VALUE/SIZE (thickness, nominal)	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE
<input type="checkbox"/> <b>JM CORBOND III® SPF</b>	Closed-cell spray polyurethane foam (SPF) is dense, durable insulation that provides superior thermal and air isolation performance, while strengthening the structure of buildings.	<input type="checkbox"/> R-7.0 / inch	2.40 m <sup>2</sup> k/w at 50 mm (Initial - ASTM C518); 2.31 m <sup>2</sup> k/w at 50 mm (Conditioned 90 days at 60°C - ASTM C518)		AC377 Appendix X NFPA 285, ASTM E2357 ABAA (evaluated and listed material and assembly) IBC Type I-V, IRC GREENGUARD Gold GREENGUARD
<input type="checkbox"/> <b>JM CORBOND IV® SPF</b>	Premium closed-cell, HFO blown product delivers high R-value per inch for superior thermal performance. JM Corbond IV was designed for use in states that prohibit the use of materials with a high GWP and HFC blowing agents.	<input type="checkbox"/> R 7.0 / inch			AC377 Appendix X NFPA 285, IBC Type I-V, IRC GREENGUARD Gold GREENGUARD
<input type="checkbox"/> <b>JM CORBOND® OPEN-CELL SPRAY FOAM (JM CORBOND® OC SPF)</b>	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. Ignition barrier not required in unvented and unoccupied attics per CCRR-1079 section 4.4.2.3.	<input type="checkbox"/> R-3.8/inch at 1" thickness <input type="checkbox"/> R-3.6/inch at > 3.5" thickness	0.61 °K•m <sup>2</sup> /W at 25 mm		AC377 IBC Type V-B, IRC CA Specification 01350 VOC Emission Testing Compliance

## OTHER BUILDING PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	SIZE	INSTALLATION LOCATION	SPECIFICATION COMPLIANCE																																																
<input type="checkbox"/> 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.	<input type="checkbox"/> Perforated for 24" o.c. joists (48" x 22" channel)																																																		
<input type="checkbox"/> GOBOARD®	Durable, ultra-lightweight waterproof tile backer board.	<table border="1"> <thead> <tr> <th>R-VALUE / THICKNESS</th> <th>WIDTH x LENGTH</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/> R-1.2 / 0.26"</td><td>3' x 5' (0.914 m x 1.524 m)</td></tr> <tr><td><input type="checkbox"/> R-1.2 / 0.26"</td><td>4' x 8' (1.219 m x 2.438 m)</td></tr> <tr><td><input type="checkbox"/> R-2.3 / 0.47"</td><td>3' x 5' (0.914 m x 1.524 m)</td></tr> <tr><td><input type="checkbox"/> R-2.3 / 0.47"</td><td>4' x 8' (1.219 m x 2.438 m)</td></tr> <tr><td><input type="checkbox"/> R-2.9 / 0.6"</td><td>4' x 8' (1.219 m x 2.438 m)</td></tr> <tr><td><input type="checkbox"/> R-5.0 / 1"</td><td>4' x 8' (1.219 m x 2.438 m)</td></tr> <tr><td><input type="checkbox"/> R-7.5 / 1.5"</td><td>4' x 8' (1.219 m x 2.438 m)</td></tr> <tr><td><input type="checkbox"/> R-10 / 2"</td><td>4' x 8' (1.219 m x 2.438 m)</td></tr> </tbody> </table>	R-VALUE / THICKNESS	WIDTH x LENGTH	<input type="checkbox"/> R-1.2 / 0.26"	3' x 5' (0.914 m x 1.524 m)	<input type="checkbox"/> R-1.2 / 0.26"	4' x 8' (1.219 m x 2.438 m)	<input type="checkbox"/> R-2.3 / 0.47"	3' x 5' (0.914 m x 1.524 m)	<input type="checkbox"/> R-2.3 / 0.47"	4' x 8' (1.219 m x 2.438 m)	<input type="checkbox"/> R-2.9 / 0.6"	4' x 8' (1.219 m x 2.438 m)	<input type="checkbox"/> R-5.0 / 1"	4' x 8' (1.219 m x 2.438 m)	<input type="checkbox"/> R-7.5 / 1.5"	4' x 8' (1.219 m x 2.438 m)	<input type="checkbox"/> R-10 / 2"	4' x 8' (1.219 m x 2.438 m)		ASTM C473 ASTM C518 ASTM D1037 ASTM E84 ASTM D4068 ASTM E96 ASTM G21/G22 ASTM D2394 ASTM C627 ASTM C666																														
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<input type="checkbox"/> MICROLITE L	Is a certified Formaldehyde-free™ thermal and acoustical fiberglass insulation, specifically designed for lamination to a wide choice of custom vapor-retarding facings.	<table border="1"> <thead> <tr> <th>R-VALUE / THICKNESS</th> <th>WIDTH x LENGTH</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/> R-10 / 2.95"</td><td>36" x 100' (914 mm x 30.48 m)</td></tr> <tr><td><input type="checkbox"/> R-10 / 2.95"</td><td>48" x 100' (1219 mm x 30.48 m)</td></tr> <tr><td><input type="checkbox"/> R-10 / 2.95"</td><td>60" x 100' (1524 mm x 30.48 m)</td></tr> <tr><td><input type="checkbox"/> R-10 / 2.95"</td><td>72" x 100' (1829 mm x 30.48 m)</td></tr> <tr><td><input type="checkbox"/> R-11 / 3.3"</td><td>48" x 75' (1219 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-11 / 3.3"</td><td>60" x 75' (1524 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-11 / 3.3"</td><td>72" x 75' (1829 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-13 / 3.85"</td><td>36" x 75' (914 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-13 / 3.85"</td><td>48" x 75' (1219 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-13 / 3.85"</td><td>60" x 75' (1524 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-13 / 3.85"</td><td>72" x 75' (1829 mm x 22.86 m)</td></tr> <tr><td><input type="checkbox"/> R-19 / 5.6"</td><td>36" x 50' (914 mm x 15.24 m)</td></tr> <tr><td><input type="checkbox"/> R-19 / 5.6"</td><td>48" x 50' (1219 mm x 15.24 m)</td></tr> <tr><td><input type="checkbox"/> R-19 / 5.6"</td><td>60" x 50' (1524 mm x 15.24 m)</td></tr> <tr><td><input type="checkbox"/> R-19 / 5.6"</td><td>72" x 50' (1829 mm x 15.24 m)</td></tr> <tr><td><input type="checkbox"/> R-25 / 7.5"</td><td>36" x 30' (914 mm x 9.14 m)</td></tr> <tr><td><input type="checkbox"/> R-25 / 7.5"</td><td>48" x 30' (1219 mm x 9.14 m)</td></tr> <tr><td><input type="checkbox"/> R-25 / 7.5"</td><td>60" x 30' (1524 mm x 9.14 m)</td></tr> <tr><td><input type="checkbox"/> R-25 / 7.5"</td><td>72" x 30' (1829 mm x 9.14 m)</td></tr> <tr><td><input type="checkbox"/> R-30 / 8.7"</td><td>36" x 27' (914 mm x 8.23 m)</td></tr> <tr><td><input type="checkbox"/> R-30 / 8.7"</td><td>48" x 27' (1219 mm x 8.23 m)</td></tr> <tr><td><input type="checkbox"/> R-30 / 8.7"</td><td>60" x 27' (1524 mm x 8.23 m)</td></tr> <tr><td><input type="checkbox"/> R-30 / 8.7"</td><td>72" x 27' (1829 mm x 8.23 m)</td></tr> </tbody> </table>	R-VALUE / THICKNESS	WIDTH x LENGTH	<input type="checkbox"/> R-10 / 2.95"	36" x 100' (914 mm x 30.48 m)	<input type="checkbox"/> R-10 / 2.95"	48" x 100' (1219 mm x 30.48 m)	<input type="checkbox"/> R-10 / 2.95"	60" x 100' (1524 mm x 30.48 m)	<input type="checkbox"/> R-10 / 2.95"	72" x 100' (1829 mm x 30.48 m)	<input type="checkbox"/> R-11 / 3.3"	48" x 75' (1219 mm x 22.86 m)	<input type="checkbox"/> R-11 / 3.3"	60" x 75' (1524 mm x 22.86 m)	<input type="checkbox"/> R-11 / 3.3"	72" x 75' (1829 mm x 22.86 m)	<input type="checkbox"/> R-13 / 3.85"	36" x 75' (914 mm x 22.86 m)	<input type="checkbox"/> R-13 / 3.85"	48" x 75' (1219 mm x 22.86 m)	<input type="checkbox"/> R-13 / 3.85"	60" x 75' (1524 mm x 22.86 m)	<input type="checkbox"/> R-13 / 3.85"	72" x 75' (1829 mm x 22.86 m)	<input type="checkbox"/> R-19 / 5.6"	36" x 50' (914 mm x 15.24 m)	<input type="checkbox"/> R-19 / 5.6"	48" x 50' (1219 mm x 15.24 m)	<input type="checkbox"/> R-19 / 5.6"	60" x 50' (1524 mm x 15.24 m)	<input type="checkbox"/> R-19 / 5.6"	72" x 50' (1829 mm x 15.24 m)	<input type="checkbox"/> R-25 / 7.5"	36" x 30' (914 mm x 9.14 m)	<input type="checkbox"/> R-25 / 7.5"	48" x 30' (1219 mm x 9.14 m)	<input type="checkbox"/> R-25 / 7.5"	60" x 30' (1524 mm x 9.14 m)	<input type="checkbox"/> R-25 / 7.5"	72" x 30' (1829 mm x 9.14 m)	<input type="checkbox"/> R-30 / 8.7"	36" x 27' (914 mm x 8.23 m)	<input type="checkbox"/> R-30 / 8.7"	48" x 27' (1219 mm x 8.23 m)	<input type="checkbox"/> R-30 / 8.7"	60" x 27' (1524 mm x 8.23 m)	<input type="checkbox"/> R-30 / 8.7"	72" x 27' (1829 mm x 8.23 m)		ASTM E136
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<input type="checkbox"/> R-13 / 3.85"	36" x 75' (914 mm x 22.86 m)																																																			
<input type="checkbox"/> R-13 / 3.85"	48" x 75' (1219 mm x 22.86 m)																																																			
<input type="checkbox"/> R-13 / 3.85"	60" x 75' (1524 mm x 22.86 m)																																																			
<input type="checkbox"/> R-13 / 3.85"	72" x 75' (1829 mm x 22.86 m)																																																			
<input type="checkbox"/> R-19 / 5.6"	36" x 50' (914 mm x 15.24 m)																																																			
<input type="checkbox"/> R-19 / 5.6"	48" x 50' (1219 mm x 15.24 m)																																																			
<input type="checkbox"/> R-19 / 5.6"	60" x 50' (1524 mm x 15.24 m)																																																			
<input type="checkbox"/> R-19 / 5.6"	72" x 50' (1829 mm x 15.24 m)																																																			
<input type="checkbox"/> R-25 / 7.5"	36" x 30' (914 mm x 9.14 m)																																																			
<input type="checkbox"/> R-25 / 7.5"	48" x 30' (1219 mm x 9.14 m)																																																			
<input type="checkbox"/> R-25 / 7.5"	60" x 30' (1524 mm x 9.14 m)																																																			
<input type="checkbox"/> R-25 / 7.5"	72" x 30' (1829 mm x 9.14 m)																																																			
<input type="checkbox"/> R-30 / 8.7"	36" x 27' (914 mm x 8.23 m)																																																			
<input type="checkbox"/> R-30 / 8.7"	48" x 27' (1219 mm x 8.23 m)																																																			
<input type="checkbox"/> R-30 / 8.7"	60" x 27' (1524 mm x 8.23 m)																																																			
<input type="checkbox"/> R-30 / 8.7"	72" x 27' (1829 mm x 8.23 m)																																																			

## OTHER BUILDING PRODUCTS

MATERIAL PROVIDED	PRODUCT DESCRIPTION	SIZE		INSTALLATION LOCATION	SPECIFICATION COMPLIANCE
<input type="checkbox"/> <b>PEBS BLANKET™</b>	Is a general purpose Formaldehyde-free™ fiberglass insulation bonded with a thermosetting resin for use in both roofs and walls of pre-engineered metal buildings. A resilient, unfaced insulating material, it provides economical thermal performance.	<b>R-VALUE / THICKNESS</b>	<b>WIDTH x LENGTH</b>		ASTM C991, Type 1
		R-10 / 3"	72" x 100' (1829 mm x 30.48 m)		
		R-13 / 4.4"	72" x 75' (1829 mm x 22.86 m)		
		R-19 / 6"	60" x 50' (1524 mm x 15.24 m)		
		R-19 / 6"	72" x 50' (1829 mm x 15.24 m)		
		R-19 / 6"	86.5" x 40' (2197 mm x 12.19 m)		
		R-19 / 6"	92.50" x 40' (2350 mm x 12.19 m)		
		R-25 / 8"	48" x 40' (1219 mm x 12.19 m)		
		R-25 / 8"	60" x 40' (1524 mm x 12.19 m)		
		R-25 / 8"	72" x 40' (1829 mm x 12.19 m)		
		R-25 / 8"	96" x 40' (2438 mm x 12.19 m)		
		R-30 / 9"	48" x 35' (1219 mm x 10.67 m)		
		R-30 / 9"	60" x 35' (1524 mm x 10.67 m)		
		R-30 / 9"	72" x 35' (1829 mm x 10.67 m)		
		R-30 / 9"	89.5" x 35' (2273 mm x 10.67 m)		
R-30 / 9"	92.5" x 35' (2350 mm x 10.67 m)				

## FIRE SAFETY

Johns Manville Fiberglass 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 fiberglass 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.)

**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, workman-like 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<sup>\*\*\*</sup> fiberglass insulation [Unfaced, Kraft-Faced, MR<sup>®</sup> Faced, ComfortTherm<sup>®</sup> Climate Pro<sup>®</sup>, JM Spider<sup>®</sup>, FSK-25 flame-resistant foil-faced, Foil-faced or Insul-SHIELD<sup>®</sup>] in roll, batt, board or loose-fill form, [thickness] thick, R-value<sup>\*\*</sup> [specify].

\*Strike “Formaldehyde-free<sup>\*\*\*</sup>” if specifying Insul-SHIELD.

\*\*2.75\* 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. 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.<sup>†</sup>
- 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 fiberglass insulation. Equipment and appliance manufacturers' instructions and local building codes shall be consulted for specific insulation clearance requirements.

<sup>†</sup>Johns Manville Fiberglass Building Insulations, exclusive of facings, have passed the ASTM E136 test. Products that pass this test are considered noncombustible by the major building codes.

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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 fiberglass 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.