



### **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  $^{\text{\tiny M}}$  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 www.JM.com for more information and current product availability information. Reference product data sheets for additional information.

Submitted To:	
Submitted By:	Date:
Johns Manville Preferred Partners Level:_	
Job Reference:	
Job Name:	
Address:	
State:	Zip:
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## FIBER GLASS INSULATION PRODUCTS

MA	TERIALS PROVIDED	PRODUCT DESCRIPTION		/ALUE/SIZE ickness, nominal)		I-VALUE/SIZE ickness, nominal)	LOCATION	SPECIFICATION COMPLIANCE
	UNFACED BATTS	Fiber glass insulation for thermal and	_	R METAL FRAMING	,			ASTM
	JM	acoustical applications with no facing.		R-25/8¼"		RSI-4.4/210 mm		Standard C665
FORMALDEHYDE-FREE" INSULATION			R-21/5½"		RSI-3.7/140 mm		Type I Class A (meets a 25 or	
			R-19/6½"		RSI-3.3/165 mm		less flame spread)	
			R-13/3½"		RSI-2.3/89 mm		Category II	
				R-11/3%"		RSI-1.9/92 mm		
				N/A/234"		N/A/70 mm		
			F0	R WOOD FRAMING		1		
				R-49/13½"				
				R-38/13"		RSI-6.7/305 mm		
				R-38/12"		RSI-6.7/330 mm		
				R-38c/10¼"		RSI-6.7/260 mm		
				R-30/10¼"		RSI-5.3/260 mm		
				R-30c/81/4"		RSI-5.3/210 mm		
				R-22/7½"		RSI-3.9/190 mm		
				R-21/5½"		RSI-3.7/140 mm		
				R-20/5.2"		RSI-3.5/89 mm		
				R-19/6½"		RSI-3.3/165 mm		
				R-15/3½"		RSI-2.6/89 mm		
				R-13/3½"		RSI-2.3/89 mm		
				R-11/3½"		RSI-1.9/ 89 mm		
	FOIL-FACED BATTS	Fiber glass batts for thermal and acoustical	F0	R METAL FRAMING		1		ASTM
	JM	applications with a foil/kraft laminate facing.		R-30/10¼"		RSI-5.3/260 mm		Standard C665 Type III
	FORMALDEHYDE-FREE™ INSULATION	- comg.		R-19/6½"		RSI-3.3/165 mm		Class B
				R-11/3%"		RSI-1.9/ 92 mm		Category 1
	KRAFT-FACED BATTS	Fiber glass batts for thermal and acoustical	F0	R METAL FRAMING	_	1		ASTM
	<i>JM</i> <i>FORMALDEHYDE-FREE</i> ™	applications faced with a flanged, kraft paper vapor retarder.		R-19/6½"		RSI-3.3/165 mm		Standard C665 Type II
	INSULATION	paper raper rates		R-13/3½"		RSI-2.3/89 mm		Class C
				R-11/3 <sup>5</sup> %"		RSI-1.9/92 mm		Category 1
			F0	R WOOD FRAMING	_	1		
				R-49/13½"		RSI-8.6/343 mm		
				R-38/13"		RSI-6.7/305 mm		
				R-38/12"	_	RSI-6.7/330 mm		
				R-38c/10¼"	-	RSI-6.7/260 mm		
				R-30/10¼"		RSI-5.3/260 mm		
				R-30c/81/4"		RSI-5.3/210 mm		
				R-21/5½"	-	RSI-3.7/140 mm		
				R-20/5.2"	$\vdash$	RSI-3.5/89 mm RSI-3.3/165 mm		
				R-19/6½" R-15/3½"	-	RSI-2.6/89 mm		
				R-13/3½"		RSI-2.3/89 mm		
				R-11/3½"		RSI-1.9/ 89 mm		
	FSK-25 FACED BATTS	Fiber glass batts for thermal and acoustical	FΩ	R METAL FRAMING		1101-1.5/ 05 111111		ASTM
	JM	applications faced with a flame-resistant,	10	*R-38/13"		RSI-6.7/330 mm		Standard C665
	FORMALDEHYDE-FREE™	foil-scrim-kraft laminate.		R-30/101/4"		RSI-5.3/260 mm		Type III
	INSULATION	*Extended tab		R-19/6½"		RSI-3.3/165 mm		Class A Category 1
				R-13/3½"		RSI-2.3/89 mm		
				R-11/3%"		RSI-1.9/92 mm		
			FΩ	R WOOD FRAMING		] 1		
				R-19/6½"		RSI-3.3/165 mm		
				R-13/3½"		RSI-2.3/89 mm		



## FIBER GLASS INSULATION PRODUCTS

MATERIAL C PROVIDER	DRODUCT DESCRIPTION		ALUE/SIZE		I-VALUE/SIZE	LOCATION	SPECIFICATION
MATERIALS PROVIDED	PRODUCT DESCRIPTION		ckness, nominal)	(th	ickness, nominal)	LOCATION	COMPLIANCE
COMFORTTHERM® POLY-ENCAPSULATED	Poly-encapsulated batts for thermal and acoustical applications are designed	FOR	METAL FRAMING		1		ASTM Standard C665
BATTS	for concealed metal and wood-framed		R-19/6½"		RSI-3.3/165 mm		Type II
	wall and ceiling applications, directly		R-13/3½"		RSI-2.3/89 mm		Class A
WITHOUT VAPOR-	above suspended ceiling systems and		R-11/3%"		RSI-1.9/92 mm		Category 1
RETARDER FACING	under floors. Poly-encapsulation makes installation cleaner and acts as a	FOR	WOOD FRAMING		-		(non-perforated surface)
WITH VAPOR-	vapor retarder. ComfortTherm Poly-		R-30/101/4"		RSI-5.3/260 mm		UL File R3711
RETARDER FACING	encapsulated Batts are also available		R-21/5½"		RSI-3.7/140 mm		ASTM E84 Flame
JM	with a vapor-retarder facing, recommended for hot, humid climates and over existing	$\Box$	R-19/6½"		RSI-3.3/165 mm		Spread 25 or less Smoke Developed
FORMALDEHYDE-FREE™	attic insulation.		R-13/3½"		RSI-2.3/89 mm		50 or less
INSULATION					1		
			R-11/3½"		RSI-1.9/89 mm	05)	
		$\vdash$		NDEK	FLOORS (REVERSE FLAN	GE)	
			R-19/61/2"		RSI-3.3/165 mm		
OTHER							
PANEL DECK	Fiber glass batts for thermal and acoustical		R-30/101/4"		RSI-5.3/260 mm		ASTM
FSK-25 FACED BATTS	applications faced with an extended tab, flame-resistant, foil-scrim-kraft		R-19/6½"		RSI-3.3/165 mm		Standard C665 Type III
JM FORMALDEHYDE-FREE™	l laminate facing.				•		Class A
INSULATION							Category 1
PANEL DECK	Fiber glass batts for thermal and acoustical		R-19/6¼"		RSI-3.3/159 mm		ASTM
PSK-FACED BATTS	applications faced with extended tab,		.,		],		Standard C665
JM	flame-resistant, white, polypropylenescrim-						Type II
FORMALDEHYDE-FREE™	kraft laminate facing.						Class A Category 1
INSULATION		500	NAME OF TRANSPORT				- ,
BASEMENT WALL INSULATION	Fiber glass blanket, either unfaced or white polypropylene faced, designed to insulate	FUK	WOOD FRAMING		1		ASTM Standard C665
JM	basement or crawl space walls without		R-11/3½"		RSI-1.9/ 89 mm		Type I Unfaced
JIVI FORMALDEHYDE-FREE™	framing. The faced product with seams						Category 2
INSULATION	taped provides a finished wall surface.						(perforated facing) ASTM
							Standard C665
							Type II, Class A
							Category 1 (faced)
							Category 2 (perforated facing)
							(periorated racing)
POST-FRAME FACED		FOR	WOOD FRAMING				ASTM
INSULATION			R-19/6½"		RSI-3.3/165 mm		Standard C665
JM		$\square$	n-19/0/2		1131-3.3/103 111111		Type I Unfaced
FORMALDEHYDE-FREE™							Category 2 (perforated facing)
INSULATION							ASTM
							Standard C665
							Type II, Class A
							Category 1 (faced) Category 2
							(perforated facing)
							4



### **FIBER GLASS INSULATION PRODUCTS**

M	ATERIALS PROVIDED	PRODUCT DESCRIPTION	LOCATION
	INSUL-SHIELD®	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.	
	INSUL-SHIELD® FSK		
	INSUL-SHIELD® PSK		
	INSUL-SHIELD® BLACK-FACED ROLLS		

### **Physical Properties**

	Dei	nsity	"k" va	lues*	Thick	ness	R-value*	RSI*
Product Name	lb/ft³	kg/m³	Btu•in (hr•ft²°F)	W <sub>m•K</sub>	inches	mm	(hr•ft²•°F) Btu	m²•K/W
I/S 150	1.5	24.0	0.24	0.035	1	25	4.2	0.74
					11/2	38	6.3	1.11
					2	51	8.3	1.46
					21/2	64	10.4	1.83
					3	76	12.5	2.20
					31/2	89	14.6	2.57
					4	102	16.7	2.94
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
					21/2	64	10.9	1.92
					3	76	13.0	2.29
					31/2	89	15.2	2.68
					4	102	17.4	3.06
I/S 300	3.0	48.1	0.23	0.033	1	25	4.3	0.76
					11/2	38	6.5	1.14
					2	51	8.7	1.53
					21/2	64	10.9	1.92
					3	76	13.0	2.29
					31/2	89	15.2	2.68
					4	102	17.4	3.06
I/S 600	6.0	96.1	0.22	0.032	1	25	4.5	0.79
					11/2	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	8.3	1.46

<sup>\*</sup>Thermal properties per ASTM C518.

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

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

<sup>&</sup>lt;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.

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



## FIBER GLASS INSULATION PRODUCTS

			INSTALLED	SETTLED	BAGS PER	MAXIMUM NET	MINIMUM WEIGHT PER
MATERIALS PROVIDED	PRODUCT DESCRIPTION	R-VALUE	THICKNESS	THICKNESS	1,000 FT <sup>2</sup>	COVERAGE	SQUARE FOOT
CLIMATE PRO®	Premium unbonded fiber glass blowing	60	20.7	20.7	29.5	34	0.928
BLOW-IN Insulation		49	17.3	17.3	23.5	43	0.739
	installation in attics.	44	15.7	15.7	20.8	48	0.656
JM FORMALDEHYDE-FREE™		38	13.8	13.8	17.7	56	0.559
INSULATION		30	11.1	11.1	13.7	73	0.432
		26	9.7	9.7	11.8	85	0.371
		22	8.3	8.3	9.9	101	0.310
		19	7.2	7.2	8.4	118	0.266
		13	5.0	5.0	5.7	176	0.179
		11	4.3	4.3	4.8	209	0.150
CLIMATE PRO BIBS®	Premium unbonded fiber glass blowing	39	9.25" (Non	ninal 2x10)	49	20.4	1.54
BLOW-IN-BLANKET® SYSTEM	BLOW-IN-BLANKET®   wool for installation in enclosed cavities using the Blow-In-Blanket	30	7.25" (Non	ninal 2x8)	28.7	34.8	0.91
	System® (BIBS®).	23	5.50" (Non	ninal 2x6)	21.8	45.8	0.69
JM FORMALDEHYDE-FREE™		15	3.50" (Non	ninal 2x4)	13.9	72	0.44
INSULATION			,				
JM SPIDER® PLUS	Johns Manville Spider® Plus fiber	23			27.5	36.4	0.83
SPRAY-IN CUSTOM	glass blow-in insulation, now featuring	22	5.50" (Non	ninal 2x6)	22.9	43.6	0.69
FIBER GLASS INSULATION	interlocking fiber technology, is the next evolution of the JM Formaldehyde-free™	15			17.5	57.1	0.53
JM	insulation family. Interlocking fiber	14	3.50" (Non	ninal 2x4)	14.6	68.6	0.44
JIVI FORMALDEHYDE-FREE™	technology allows the fibers to spring	14			14.0	00.0	0.44
INSULATION	and lock into cavities with no adhesive						
	or netting.						
	Specification Compliance ASTM Standard C1014						
	ASTM Standard C764						
	The JM Spider system meets all building						
	code fire test equirements for concealed and exposed insulation.						
	and exposed insulation.						
JM SPIDER® PLUS	The Blow-In-Blanket System (BIBS®) is a	23	5.50" (Nom	inal 2x6)	28	36	0.825
BIBS	patented process for installing JM Spider	15	3.50" (Nom	inal 2x4)	18	57	0.525
JM	Plus loose-fill insulation.  JM Spider Plus fiber is blown in dry						
FORMALDEHYDE-FREE™ INSULATION	behind BIBS netting for complete						
	coverage making it easier to install at						
	R-15 and R-23 in 2x4 and 2x6 walls.						



## **MINERAL WOOL INSULATION PRODUCTS**

MATERIALS PROVIDED	PRODUCT DESCRIPTION	AVAIL	ABILITY	LOCATION	SPECIFICATION COMPLIANCE
SOUND ATTENUATION FIRE BATTS (SAFB)  CURTAINWALL	An unfaced batt designed to deliver noise control in metal stud wall cavities of interior or exterior walls, or above suspended ceilings  A mineral wool board designed	Thickness  1.00" (25 mm)  1.50" (38 mm)  1.50" (38 mm)  2.00" (51 mm)  3.00" (76 mm)  4.00" (102 mm)  6.00" (152 mm)  Nominal Density	Width x Length  24" x 48" (610 mm x 1219 mm)  16" x 48" (406 mm x 1219 mm)  24" x 48" (610 mm x 1219 mm)  16" x 48" (406 mm x 1219 mm)  16" x 48" (406 mm x 1219 mm)  24" x 48" (610 mm x 1219 mm)  24" x 48" (610 mm x 1219 mm)  16" x 48" (610 mm x 1219 mm)  24" x 48" (610 mm x 1219 mm)  24" x 48" (610 mm x 1219 mm)  Width x Length		ASTM C665 Type 1 ASTM C665 ASTM C1104 ASTM C1338 ASTM E84 ASTM E136
	to provide superior fire resistance and thermal properties in glass, metal, and masonry curtainwall spandrel systems.	4.0 pcf (64 kg/m³) 6.0 pcf (96 kg/m³) 8.0 pcf (128 kg/m³) Custom Size:	24" x 48" (610 mm x 1219 mm) 24" x 48" (610 mm x 1219 mm) 24" x 48" (610 mm x 1219 mm)		ASTM C612 ASTM C665 ASTM C1104 ASTM C1338 ASTM E84 ASTM E96 ASTM E136
SAFING	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.	4.00" (100mm)	Width x Length 24" x 48" (610 mm x 1219 mm)		ASTM C423 ASTM C612 ASTM C665 ASTM C1104 ASTM C1338 ASTM E84 ASTM E96 ASTM E136
TEMPCONTROL®	Mineral Wool batts designed to deliver thermal control in wood-stud cavities of exterior walls, basements, and heated crawl spaces.	R-Value/Thickness  R-15 TempControl / 3.25"  R-23 TempControl / 5.5"  R-23 TempControl / 5.5"	Width x Length  15.25" x 47"  23" x 47"  15.25" x 47"		ASTM C665 Type 1 ASTM E136 ASTM E84 ASTM C518 ASTM E970 ASTM C1104 ASTM C1304 ASTM C665 ASTM C1338
CANADA TEMPCON	TROL® PRODUCTS	RSI-Value/Thickness  R-14 TempControl (RSI-2.5) / 3.5" (89 mm) R-14 TempControl (RSI-2.5) / 3.5" (89 mm) R-22 TempControl (RSI-3.9) / 5.5" (140 mm) R-22 TempControl (RSI-3.9) / 5.5" (140 mm) R-24 TempControl (RSI-4.2) / 5.5" (140 mm) R-28 TempControl (RSI-4.2) / 5.5" (140 mm) R-28 TempControl (RSI-4.9) / 7.25" (184 mm) R-28 TempControl (RSI-4.9) / 7.25" (184 mm)	Width x Length  15.25" x 47" (387 mm x 1194 mm)  23" x 47" (584 mm x 1194 mm)  15.25" x 47" (387 mm x 1194 mm)  23" x 47" (584 mm x 1194 mm)  15.25" x 47" (387 mm x 1194 mm)  23" x 47" (584 mm x 1194 mm)  15.25" x 47" (387 mm x 1194 mm)  23" x 47" (584 mm x 1194 mm)  23" x 47" (584 mm x 1194 mm)		-
SOUND & FIRE BLOCK®	Mineral Wool batts designed to deliver noise control in wood stud cavities of interior walls and ceilings between floors.	Thickness Sound & Fire Block 3" (76 mm)	Width x Length 15.25" (387 mm) x 47" (1194 mm)		ASTM E90 ASTM E84 ASTM E970 ASTM E136 ASTM C1104 ASTM C1304 ASTM C665 ASTM C1338 STC-47



## FOAM SHEATHING INSULATION PRODUCTS

MATERIALS PROVIDED	PRODUCT DESCRIPTION	R-VALUE/SIZE (thickness, nominal)	RSI-VALUE/SIZE (thickness, nominal)	LOCATION	SPECIFICATION COMPLIANCE		
AP™ FOIL-FACED	Rigid foam sheathing insulation for	R-2.7/0.50"	RSI-0.48/13 mm	LOGATION	ASTM C1289		
POLYISOCYANURATE	non-exposed uses in commercial and	R-3.4/0.625"	RSI-0.62/16 mm		Type 1		
FOAM SHEATHING	residential construction. Composed of a polyisocyanurate foam core bonded on	R-4.4/0.75"	RSI-0.77/19 mm		Class 1 ASTM Test Method		
	each side to foil laminate facers.	R-6/1.00"	RSI-1.06/25 mm		C518 at 75°F		
		R-9.3/1.50"	RSI-1.63/38 mm				
		R-13.0/2.00"	RSI-2.21/51 mm				
		R-16/2.50"	RSI-2.79/64 mm				
		R-19/3.00"	RSI-3.36/76 mm				
		R-22/3.50"	RSI-3.94/89 mm				
		R-26/4.00"	RSI-4.52/102 mm				
		R-28/4.50"	RSI-5.09/114 mm				
CI MAX®	High efficiency rigid foam sheathing	R-2.7/ 0.50"	RSI-0.48/13 mm		ASTM C1289		
_ GI WIAA	designed for exposed interior applications.	$\overline{}$	RSI-0.79/20 mm		Type 1		
	Composed of a uniform closed-cell	R-4.5/0.77"	H '		Class 1		
	polyisocyanurate foam core bonded on each side to glass-mat-reinforced	R-6.0/1.00"	RSI-1.06/25 mm		ICC- ESR-3398 ASTM Test Method		
	1.5 mil embossed aluminum facers with	R-9.3/1.50"	RSI-1.63/38 mm		C518 at 75°F		
	silver finish.	R-10/1.65"	RSI-1.81/42 mm				
		R-13/2.00"	RSI-2.21/51 mm				
		R-16/2.50"	RSI-2.79/64 mm				
		R-19/3.00"	RSI-3.36/76 mm				
		R-22/3.50"	RSI-3.94/89 mm				
T .		R-26/4.00"	RSI-4.52/102 mm				
	High efficiency rigid foam sheathing designed for exposed interior applications.	R-2.7/ 0.50"	RSI-0.48/13 mm		ASTM C1289 Type 1		
	Composed of a uniform closed-cell polyisocyanurate foam core bonded on each side to glass-mat-reinforced 1.5 mil embossed aluminum facers with white	R-4.5/0.77"	RSI-0.79/20 mm		Class 1		
		R-6.0/1.00"	RSI-1.06/25 mm		ICC- ESR-3398		
		R-9.3/1.50"	RSI-1.63/38 mm		ASTM Test Method C518 at 75°F		
	finish on one side.	R-10/1.65"	RSI-1.81/42 mm		0310 dt 731		
		R-13/2.00"	RSI-2.21/51 mm				
		R-16/2.50"	RSI-2.79/64 mm				
		R-19/3.00"	RSI-3.36/76 mm				
		R-22/3.50"	RSI-3.94/89 mm				
		R-26/4.00"	RSI-4.52/102 mm				
CI MAX® SILVER	High efficiency rigid foam sheathing	R-2.7/ 0.50"	RSI-0.48/13 mm		ASTM C1289		
	designed for exposed interior applications.  Composed of a uniform closed-cell	R-4.5/0.77"	RSI-0.79/20 mm		Type 1 Class 1		
	polyisocyanurate foam core bonded	R-6.0/1.00"	RSI-1.06/25 mm		ICC- ESR-3398		
	on each side to glass-mat-reinforced 1.5 mil embossed aluminum facers with	R-9.3/1.50"	RSI-1.63/38 mm		ASTM Test Method		
	silver finish.	R-10/1.65"	RSI-1.81/42 mm		C518 at 75°F		
		R-13/2.00"	RSI-2.21/51 mm				
		R-16/2.50"	RSI-2.79/64 mm				
		R-19/3.00"	RSI-3.36/76 mm				
		R-22/3.50"	RSI-3.94/89 mm				
		R-26/4.00"	RSI-4.52/102 mm				
NAILBOARD®	Rigid roof insulation composed of a	Includes 1/16" OSB:			ASTM C1289, Type		
INSULATION	polyisocyanurate foam core attached to	R-21.1/4"			F.S. HH-I-1972/GEN		
	1/16" or 5/8" OSB on one side and fiber glass reinforced facer on the other.	R-18/3½"			HH-I-1972/2 ASTM Test Method		
	יים ואווים שנים אווים שנים ואווים שנים שנים שנים שנים שנים שנים שנים שנ	R-15/3"			C518 at 75°F		
		R-12/2½"					
		R-9.2/2"					



## FOAM SHEATHING INSULATION PRODUCTS

MATERIALS PROVIDED	PRODUCT DESCRIPTION	R-VALUE/SIZE (thickness, nominal) US FORMULA	RSI-VALUE/SIZE (thickness, nominal) CANADIAN FORMULA	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.	R-7.0/inch	2.40 m² k/w at 50 mm (Initial - ASTM C518); 2.31 m² k/w at 50 mm (Conditioned 90 days at 60°C - ASTM C518); 2.03 m² k/w at 50 mm (Long Term - CAN/ULC S770 LTTR)		AC377 NFPA 285 ASTM E2357 ABAA (evaluated and listed material and assembly) IBC Type I-V, IRC
JM CORBOND MCS™ SPF	JM Corbond Multi-Climate Solution (MCS) SPF provides superior thermal, air and moisture isolation. Approved for application without an ignition barrier in attics and crawl spaces that are accessed only for service of utilities.	R-6.8/inch	Not available in Canada		AC377 Appendix X NFPA 285 IBC Type I-V, IRC
JM CORBOND® OPEN-CELL SPRAY FOAM (JM CORBOND® OC SPF)	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.	R-3.6/inch	0.61 °K•m²/W at 25 mm		AC377 IBC Type V-B, IRC
JM CORBOND® OPEN-CELL APPENDIX X SPRAY FOAM (JM CORBOND® OCX SPF)	Open-cell Appendix X 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. Approved for application without an ignition barrier in attics and crawl spaces that are accessed only for service of utilities.	R-3.7/inch	Not available in Canada		AC377 IBC Type V-B, IRC



## **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)  Perforated for 24" o.c. joists (48" x 22" channel)		



# **Guide Specifications for Johns Manville Fiber Glass Thermal and Acoustical Insulations**

#### **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.)

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™\* 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 ¾" 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.
- 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.

<sup>†</sup>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.



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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 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. © 2015 Johns Manville. All Rights Reserved. 717 17th Street Denver CO, 80202 BID-0028 7/15