

PRODUCT DATA SHEET

JM FORMALDEHYDE-FREE™ FIBRE GLASS INSULATION

JM Formaldehyde-free™ fibre glass building insulation offers the thermal and acoustical performance you expect from fibre glass—and it improves indoor air quality because it's made without formaldehyde. Why is that important? Because reducing overall formaldehyde levels in the home creates a healthier living environment, and choosing JM Formaldehyde-free™ insulation is one way of achieving that goal. JM offers the only complete line of certified Formaldehyde-free™ fibre glass building insulation. Visit JM.com for more information.

APPLICATIONS

Thermal and acoustical insulation of enclosed interior and exterior walls and ceiling/floor assemblies

- Wood-frame construction – residential homes and light commercial buildings
- Metal-frame construction – residential and commercial buildings
- Manufactured homes – modular or manufactured housing
- Engineered-wood construction – assemblies framed with 305 mm (12") or greater on-center cavities
- Enclosed-cavity drill-and-fill – see JM Spider for Drill and Fill data sheet (CAN-336)

INSTALLATION

Equipment for JM Spider insulation installation is engineered for professional use. The JM Spider Insulation Delivery System is compatible with most fibre glass blowing machines and includes the following pieces of equipment:

- Vacuum fan and generator
- Portable adhesive tank
- Blowing and vacuum hoses
- High-pressure adhesive pump and hose
- Blowing nozzle attachments
- Wall scrubber

Contact your local JM sales representative for a certified JM Spider insulation contractor.

RECOMMENDED STORAGE AND TRANSPORT

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

SPECIFICATION COMPLIANCE

JM Spider insulation meets ASTM C764 "Standard Specification for Mineral Fibre Loose-Fill Thermal Insulation." JM Spider insulation meets standard CAN/ULC-S702 "Standard for Mineral Fibre Thermal Insulation for Buildings" (CCMC listing 13212-R). JM Spider system insulation meets all building code fire test requirements for concealed and exposed insulation. (See following page for a complete list of test results.)

PACKAGING

JM Spider loose-fill fibre glass insulation is available in 13.6 kg (30-pound) bags. JM Spider adhesive comes in totes and 208 L (55-gallon) drums.

SHORT FORM SPECIFICATIONS

All insulation shown on drawings or specified herein shall be "JM Spider® Custom Insulation System" as manufactured by Johns Manville. Thermal resistance "R" (RSI) values of the insulation shall be R (RSI) _____ in ceilings, R (RSI) _____ in walls and R (RSI) _____ in floors over unheated spaces.

LIMITATIONS OF USE

Check applicable building codes.



PERFORMANCE ADVANTAGES

- **Improves indoor air quality:** because it's made without formaldehyde.
- **Energy efficient:** provides superior resistance to heat transfer with R-values (RSI) up to R-24 (RSI-4.2) in a 2x6 cavity.
- **Covers completely:** gap-free coverage maximizes thermal and acoustical performance.
- **Resilient:** revolutionary adhesive binder and lightweight fibre glass prevent settling.
- **Controls sound:** reduces transmission of sound through exterior and interior walls and floor/ceiling assemblies. See the JM Spider Insulation Acoustical Performance Advantages sheet (BID-0080) for details.
- **Easy to install:** insulates a typical 250 m² (2,700 sq. ft.) home in 2–3 hours, twice as fast as cellulose.
- **Mold and mildew resistant:** fibre glass is naturally mold resistant; adhesive contains an EPA-registered mold inhibitor to further protect the product from mold and mildew.
- **Fire resistant and noncombustible:** see Test Data.
- **Noncorrosive:** does not accelerate corrosion of pipes, wiring or metal studs.
- **Durable:** will not rot, mildew or otherwise deteriorate. JM Spider insulation will not hold moisture or permanently lose R-value (RSI).
- **Fast drying:** requires less moisture than cellulose during installation and dries immediately when installed as recommended. See the JM Spider Insulation Drying Time Information sheet (BID-0082) for details.
- **Recycled content:** made with at least 50% post-consumer recycled bottle glass.



Spray-in Custom Fibre Glass Insulation and Delivery System



PRODUCT DATA SHEET

JM SPIDER®

TEST DATA

Test Method	Results
ASTM E84 and CAN/ULC S102.2 <i>Surface Burning</i>	Flame spread less than 25, smoke developed less than 50
ASTM E136 <i>Combustion Characteristics</i>	Pass, indicating noncombustible material
ASTM E970 <i>Critical Radiant Flux</i>	Greater than 0.12 W/sq cm, passing for exposed attic installation
ASTM C1338 <i>Fungi Resistance of Insulation Materials</i>	Pass, with no growth
ASTM G21 <i>Fungi Resistance of Synthetic Polymeric Materials</i>	Pass, with no growth
ASTM C764 <i>Corrosiveness</i>	No greater than sterile cotton for steel, copper, aluminum

Test Method	Results
ASTM C518 <i>Thermal Performance – Heat Flow Meter</i>	See coverage chart for standard R-values
ASTM C1104/C1104M <i>Water Vapour Sorption</i>	5% or less by weight
ASTM C1304 <i>Odor Emission</i>	No objectionable odor
ES Section 01350 <i>VOC Emissions</i>	Pass, with no hazardous emissions
CAN/ULC - S702 <i>Mineral Fibre thermal insulation for building</i>	Passed

WALL AND OVERHEAD COVERAGE FOR JM SPIDER SPRAY-IN CUSTOM FIBRE GLASS INSULATION*

Note: Minimum installed density for overhead application: 28.8 kg/m³ 1.8 lbs/ft³

WOOD FRAME																	
Thermal Resistance		Cavity Depth		Minimum Installed Density		Minimum Mass Per Unit Area		Maximum Net Coverage*		Bag Usage Per:		Approx. Adhesive Usage Per:					
R-value	RSI	mm	inches	kg/m ³	lbs/ft ³	kg/m ²	lbs/ft ²	m ² /bag	ft ² /bag	100 m ²	1000 ft ²	100 m ²		1000 ft ²			
												Litres		U.S. Gallons			
14	2.5	89	3.5	19.2	1.2	1.71	0.35	8.0	85.7	12.6	11.7	24	to	36	6	to	9
15	2.6			25.6	1.6	2.28	0.47	6.0	64.3	16.7	15.6	32	to	48	8	to	12
22	3.9			19.2	1.2	2.68	0.55	5.1	54.5	19.7	18.3	37	to	56	9	to	14
23	4.1			24.0	1.5	3.36	0.69	4.1	43.6	24.7	22.9	47	to	70	11	to	17
24	4.2	140	5.5	28.8	1.8	4.03	0.83	3.4	36.4	29.6	27.5	56	to	84	14	to	21
31	5.5			24.0	1.5	4.42	0.91	3.1	33.1	32.5	30.2	62	to	92	15	to	23
32	5.6			28.8	1.8	5.31	1.09	2.6	27.6	39.0	36.3	74	to	111	18	to	27
39	6.9			24.0	1.5	5.64	1.16	2.4	25.9	41.5	38.5	79	to	118	19	to	29
40	7.0	235	9.25	28.8	1.8	6.77	1.39	2.0	21.6	49.8	46.3	94	to	141	23	to	35
47	8.3			24.0	1.5	6.86	1.41	2.0	21.3	50.5	46.9	95	to	143	23	to	35
49	8.6			28.8	1.8	8.24	1.69	1.7	17.8	60.5	56.3	115	to	172	28	to	42
STEEL STUDS, PURLINS, ENGINEERED LUMBER, ETC.																	
16	2.8	102	4.0	19.2	1.2	1.95	0.40	7.0	75.0	14.4	13.3	27	to	41	7	to	10
17	3.0			25.6	1.6	2.60	0.53	5.2	56.3	19.1	17.8	36	to	54	9	to	13
25	4.4	152	6.0	24.0	1.5	3.66	0.75	3.7	40.0	26.9	25.0	51	to	76	13	to	19
26	4.6			28.8	1.8	4.39	0.90	3.1	33.3	32.3	30.0	61	to	92	15	to	23
34	6.0			24.0	1.5	4.88	1.00	2.8	30.0	35.9	33.3	68	to	102	17	to	25
35	6.2	203	8.0	28.8	1.8	5.86	1.20	2.3	25.0	43.1	40.0	81	to	122	20	to	30
42	7.4			24.0	1.5	6.10	1.25	2.2	24.0	44.9	41.7	85	to	127	21	to	31
44	7.7			28.8	1.8	7.32	1.50	1.9	20.0	53.8	50.0	102	to	153	25	to	38
51	9.0	305	12.0	24.0	1.5	7.32	1.50	1.9	20.0	53.8	50.0	102	to	153	25	to	38
52	9.2			28.8	1.8	8.79	1.80	1.5	16.7	64.6	60.0	122	to	183	30	to	45

*Net coverage area per bag, does not include framing adjustment.



Visit our website at www.JM.com or call 800-654-3103 | Building Insulation Division P.O. Box 5108 | Denver, CO 80217-5108

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of JM Spider® Spray-in Custom Fibre 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 above.