

PRODUCT DATA SHEET

THE PREMIUM BLOW-IN INSULATION SOLUTION

Johns Manville Spider® Plus fibre glass blow-in insulation, now featuring interlocking fibre technology, is the next evolution of the JM Formaldehyde-free™ insulation family. Interlocking fibre technology allows the fibres to spring and lock into cavities with no adhesive or netting. This complete coverage results in superior thermal performance and sound control. And with a simple installation that's typically faster than other spray systems and unprecedented drying times, Spider Plus saves professional installers time and money on every project.

APPLICATIONS

Thermal and Acoustical Insulation of Interior and Exterior Walls and Ceiling/Floor Assemblies (with stud or joist cavities).

- 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") to 488 mm (19.2") on-center cavities.

INSTALLATION

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

- Vacuum fan and generator
- Fluid delivery system
- Blowing and vacuum hoses
- Blowing nozzle attachments
- Wall scrubber

Contact your local JM sales representative for a certified JM Spider Plus insulation contractor. See the following pages for coverage and drying time information (note: no drying time needed for <10% moisture application). Visit www.JM.com for additional information, including information sheets on acoustical performance advantages.

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 Plus insulation meets ASTM C764, "Standard Specification for Mineral Fibre Loose-Fill Thermal Insulation." JM Spider Plus insulation meets CAN/ULC-S702 "Standard for Mineral Fibre Thermal Insulation for Buildings" (CCMC listing 13212-R). JM Spider Plus insulation system 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 Plus loose-fill fibre glass insulation is available in 13.6 kg (30 lb) bags.

SHORT FORM SPECIFICATIONS

All insulation shown on drawings or specified herein shall be "JM Spider Plus 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 up to R-24 (RSI 4.2) in a 2x6 cavity.
- **Covers completely:** gap-free coverage maximizes thermal and acoustical performance and minimizes air leakage where energy can escape.
- **Resilient:** interlocking lightweight fibre glass prevents settling.
- **Controls sound:** reduces transmission of sound through exterior and interior walls and floor/ceiling assemblies.
- **Easy to install:** insulates a typical 250 m² (2,700 sq. ft.) home in 2–3 hours, twice as fast as other spray-in systems.
- **Mold and mildew resistant:** fibre glass is naturally mold resistant.
- **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 Plus insulation will not hold moisture or permanently lose R-value.
- **Fast drying:** requires less moisture than other spray-in systems during installation and dries immediately when installed as recommended. See the following pages for details.



Blow-in Custom Fibre Glass Insulation and Delivery System



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JM SPIDER PLUS

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/cm ² , 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
CAN/ULC - S702 <i>Mineral Fibre Thermal Insulation for Buildings</i>	Pass

Test Method	Results
ASTM C764 <i>Corrosiveness</i>	No greater than sterile cotton for steel, copper, aluminum
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

WALL AND OVERHEAD COVERAGE FOR JM SPIDER PLUS BLOW-IN CUSTOM FIBRE GLASS INSULATION

Note: Minimum installed density for overhead 35.2 kg/m³ (2.2 lbs/ft³)
Minimum installed wall density is 24 kg/m³ (1.5 lbs/ft³)

WOOD FRAME											
Thermal Resistance		Cavity Depth		Minimum Installed Density		Minimum Mass Per Unit Area		Maximum Net Coverage*		Minimum Bag 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
14	2.5	89	3.5	24.0	1.5	2.14	0.44	6.4	68.6	15.7	14.6
15	2.6			28.8	1.8	2.56	0.53	5.3	57.1	18.8	17.5
23	4.1	140	5.5	24.0	1.5	3.36	0.69	4.1	43.6	24.7	22.9
24	4.2			28.8	1.8	4.03	0.83	3.4	36.4	29.6	27.5
31	5.5	184	7.25	24.0	1.5	4.42	0.91	3.1	33.1	32.5	30.2
32	5.6			28.8	1.8	5.31	1.09	2.6	27.6	39.0	36.3
39	6.9	235	9.25	24.0	1.5	5.64	1.16	2.4	25.9	41.5	38.5
40	7.0			28.8	1.8	6.77	1.39	2.0	21.6	49.8	46.3
47	8.3	286	11.25	24.0	1.5	6.86	1.41	2.0	21.3	50.5	46.9
49	8.6			28.8	1.8	8.24	1.69	1.7	17.8	60.5	56.3
STEEL STUDS, PURLINS, ENGINEERED LUMBER, ETC.											
16	2.8	102	4.0	24.0	1.5	2.44	0.50	5.6	60.0	17.9	16.7
17	3.0			28.8	1.8	2.93	0.60	4.6	50.0	21.5	20.0
25	4.4	152	6.0	24.0	1.5	3.66	0.75	3.7	40.0	26.9	25.0
26	4.6			28.8	1.8	4.39	0.90	3.1	33.3	32.3	30.0
34	6.0	203	8.0	24.0	1.5	4.88	1.00	2.8	30.0	35.9	33.3
35	6.2			28.8	1.8	5.86	1.20	2.3	25.0	43.1	40.0
42	7.4	254	10.0	24.0	1.5	6.10	1.25	2.2	24.0	44.9	41.7
44	7.7			28.8	1.8	7.32	1.50	1.9	20.0	53.8	50.0
50	8.8	305	12.0	24.0	1.5	7.32	1.50	1.9	20.0	53.8	50.0
52	9.2			28.8	1.8	8.79	1.80	1.5	16.7	64.6	60.0

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



HOW FAST DOES JM SPIDER PLUS INSULATION DRY?

Standard practice is to install JM Spider Plus insulation with 10 percent moisture or less — a lower moisture content than you'll find in most new wood framing. So, installed as recommended, JM Spider Plus insulation needs no drying time. That means you can put up a vapour retarder or gypsum board without waiting, and without worrying about trapping excessive moisture in the wall, no matter what the humidity or temperature outside*.

WHAT IF IT'S INSTALLED WITH HIGHER MOISTURE CONTENT?

If you install JM Spider Plus with 10 to 15 percent moisture and cover it with drywall, kraft or "smart" film, you do not have to wait for it to dry. If you install JM Spider Plus with more than 10 percent moisture content and cover it with a low-permeability vapour retarder like polyethylene, refer to the graphs below for specific drying times, or contact your JM sales representative.

JM Spider Plus needs no drying time when applied with 10 percent moisture or less, even if the temperature is below freezing.

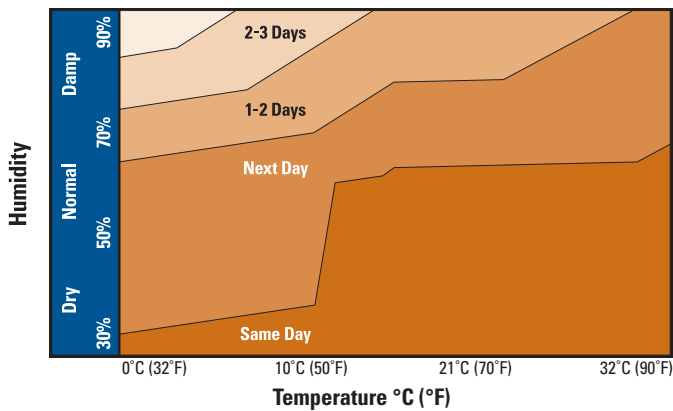
Moisture meters do not provide correct readings when you use them with fibrous insulation materials like JM Spider Plus.

Install Spider Plus at a water flow rate of <1 kg/min (2.3 lbs/min) and a fibre flow rate of >8.2 kgs/min (18 lbs/min) to achieve <10% installed moisture.

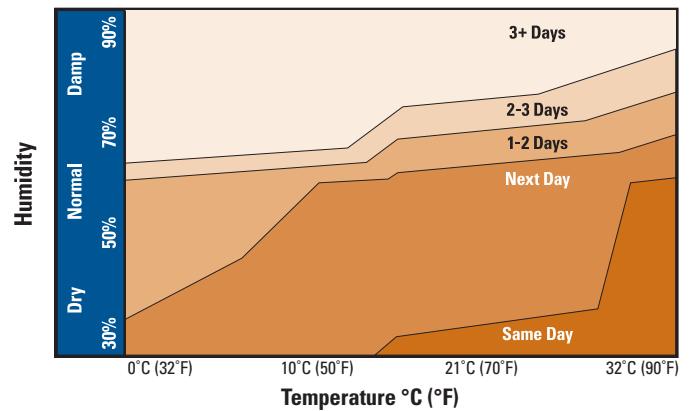
JM Spider Plus drying times with installed moisture content between 10 and 15 percent

Important — Install JM Spider Plus with moisture content of 10 percent or less to eliminate drying time.

2x4 construction



2x6 construction



Contact your local JM sales representative for a JM Spider Plus Certified Contractor. Visit www.JM.com for additional information on the JM Spider Plus Custom Insulation System.

*When installed in framing deeper than 2x6, allow 24 hours drying time before installing a low-permeability vapour retarder like polyethylene.