Johns Manville
A Berkshire Hathaway Company

CANADA

COMMERCIAL + RESIDENTIAL

Building Insulation Guide

Here at Johns Manville, we are more than your supplier; we are your channel partner. When you do business with JM, you can count on it being a partnership for the long haul, with the support that enables you to run your business your way. With access to one of the industry's broadest ranges of insulation solutions, you can meet virtually every demand and get the most from your inventory.

A BERKSHIRE HATHAWAY COMPANY

Johns Manville is proud to be part of Berkshire Hathaway, one of the most respected, financially sound companies in the world. We operate with unquestionable integrity and stability and have unmatched resources to invest in developing future insulation solutions designed to exceed our customers' needs.

MORE THAN 160 YEARS OF EXPERIENCE AT WORK

When Johns Manville was founded in 1858, we focused on developing materials to make diverse environments stronger, durable, more energy-efficient and comfortable. We also believed in building relationships by providing outstanding service and support. The world has changed, but our principles still hold true today.

COMPREHENSIVE INSULATION EXPERTISE AND SUPPORT

JM TechConnect℠ is the single source for JM customers to access comprehensive insulation knowledge and installation advice from our dedicated technical experts – in person, by phone or online. We can help you quickly solve even the most complex insulation challenges. ***Connect with us at 800-654-3103.***

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**JM insulation products do not contain 100% recycled content. Actual recycled content will vary by product and manufacturing location. Please see specific Product Data Sheet or call 800-654-3103 for more information.*

FIBREGLASS

As one of Canada's most common insulation materials, JM Formaldehyde-free thermal and acoustical fibreglass insulation is comprised of long, resilient glass fibres bonded with a thermosetting resin. ***Where to use: walls, ceilings, floors and attics.***

Unfaced Fibreglass

BATTS AND ROLLS

Available for steel or wood stud framing. May be used with a separate vapour retarder when moisture control is required.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer, with RSI/R-values up to RSI 4.9 (R-28) for wood stud and RSI 7.0 (R-50) for metal stud.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Fire-Resistant: Flame Spread of 10 or less and Smoke Developed of 50 or less.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and steel studs.

Superior Performance: Stable bonded glass fibres will not slump within the wall cavity, settle or break down during normal applications.

AVAILABILITY*

RSI/R-Values: ***Wood or Metal Stud:*** RSI 1.4 (R-8) to RSI 7.0 (R-50)

Widths: ***Wood Stud:*** 381mm (15"), 483mm (19") 584mm (23"), 610mm (24");

Metal Stud: 406mm (16"), 610mm (24")

Thicknesses: Various. Engineered for maximum performance within the cavity.

JM Pre-Engineered Wood Framing

BATTS AND ROLLS

Excellent thermal performance with a snug friction fit.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and steel studs.

Superior Performance: Stable bonded glass fibres will not slump, settle or break down during normal applications.

AVAILABILITY*

RSI/R-Values: RSI 2.1 (R-12), RSI 3.5 (R-20), RSI 3.8 (R-22), RSI 4.9 (R-28)

Thicknesses: 76mm (3"), 152mm (6"), 216mm (8.5")

Width: 483mm (19")

See complete data sheet at* **www.jm.com.

Sound-SHIELD

BATTS

Lightweight, sound-absorbent insulation to reduce transmission of sounds in walls, floors and ceilings.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Fire-Resistant: Flame Spread of 25 or less and Smoke Developed of 50 or less.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and steel studs.

AVAILABILITY*

Thicknesses: ***Wood Stud:*** 38mm (1.5"), 102mm (4")

Metal Stud 70mm (2.75"), 102mm (4"), 152mm (6")

Widths: ***Wood Stud:*** 381mm (15")

Metal Stud: 406mm (16")

FIBREGLASS

JM Spider® Plus

BLOW-IN FIBREGLASS

Fibres interlock into cavities to fill gaps and voids with no adhesive and no settling.

ADVANTAGES

Fast Drying: Dries immediately once installed.

Thermally Efficient: Effective resistance to heat transfer.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Complete Coverage: Effective in tight spaces, areas with large amounts of cross-bridging or small gaps and voids.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Fire-Resistant: Flame Spread of 25 or less and Smoke Developed of 50 or less.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

AVAILABILITY*

Coverage:
Wood Stud: 4.1m²/bag (43.6ft²/bag) at R-23
Metal Stud: 3.7m²/bag (40ft²/bag) at R-25

UMBI®

ROLLS

Excellent insulating value along with a vapour retarder.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Fire-Resistant: Flame Spread of 25 or less and Smoke Developed of 50 or less.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

AVAILABILITY*

RSI/R-Values: RSI 1.2 (R-7), RSI 1.8 (R-10), RSI 2.4 (R-14)
Thicknesses: 48mm (1.9"), 70mm (2.75"), 100mm(3.9")
Width: 1,219mm (48")

See complete data sheet at* **www.jm.com. *Actual colour of products may vary from image.*

JM Climate Pro®

BLOW-IN FIBREGLASS

Fits hard-to-reach cavities and corners for easier and faster installation.

ADVANTAGES

Easy Installation: Insulates attics or spaces of all shapes and sizes without cutting or fitting.

Complete Coverage: Effective in tight spaces, areas with large amounts of cross-bridging or small gaps and voids.

Thermally Efficient: Effective resistance to heat transfer. No settling; no loss of RSI/R-value following installation.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Fire-Resistant: Flame Spread of 25 or less and Smoke Developed of 50 or less.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

Superior Performance: Stable bonded glass fibres will not slump, settle or break down during normal applications.

AVAILABILITY*

Coverage: 4.7m^2/bag (51ft^2/bag) at RSI-7 (R-40)

PEBS Blanket

ROLLS

For use in both roofs and walls of pre-engineered metal buildings.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer.

Formaldehyde-free: Will not off-gas formaldehyde in the indoor environment.

Sound Control: Reduces sound transmission through exterior and interior walls, floor and ceiling assemblies.

Fire-Resistant: Flame Spread of 25 or less and Smoke Developed of 50 or less.

Resilient Inorganic Glass: No rotting, mildew or deterioration. Also noncorrosive to pipes, wiring and metal studs.

AVAILABILITY*

Thicknesses: 76mm (3"), 89mm (3.5"), 102mm (4"), 127mm (5"), 152mm (6"), 203mm (8")

Width: 1,219mm (48")

FIBREGLASS SPECIFICATION COMPLIANCE

Product	Standard for Mineral Fibre Thermal Insulation for Buildings	Flame Spread CAN/ULC-S102	Smoke Development CAN/ULC-S102	Critical Radiant Flux ASTM E970	Water Vapour Sorption ASTM C1104	Odour Emission ASTM C1304	Corrosiveness ASTM 665	Fungi Resistance ASTM G21, ASTM C1388	VOC Emission ASTM D5116	Thermal Transmission Properties ASTM C518	Smoulder Resistance CAN/ULC S129	Non-Combustable CAN/ULC S114
Unfaced Fibreglass	**CAN/ULC-S702-09**	<25	<50	N/A	N/A	N/A	Pass	Pass	Pass, EcoLogo	Tested	Pass	Pass
Pre-Engineered Wood Framing Batts and Roll												
PEBS Blanket												
UMBI®												
Sound-SHIELD												
JM Climate Pro®	**CAN/ULC-S702-09, Type 5**			Greater than 0.12 W/cmw2, passing for exposed attic installation	5% or less by weight	Pass						
JM Spider® Plus	**CAN/ULC-S702-09**											

MINERAL WOOL

Similar to fibreglass, the inorganic fibres of JM Mineral Wool are developed from basalt (a type of volcanic rock). ***Where to use: interior and exterior walls, basement walls and heated crawl spaces.***

TempControl®

BATTS

Provides year-round thermal comfort when used in exterior walls.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer with RSI values up to RSI 4.9 (R-28).

Fire-Resistant: Melting point in excess of 1093˚C (2000˚F). Flame Spread of 0 and Smoke Developed of 0.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

AVAILABILITY*

RSI/R-Values: RSI 2.5 (R-14), RSI 3.9 (R-22), RSI 4.9 (R-28)

Widths: 387mm (15.25"), 406mm (16")*, and 584mm (23")

Length: 1,194mm (47")

Thicknesses: 89mm (3.5"), 140mm (5.5"), 184mm (7.25")

*Available by special order only

Sound & Fire Block®

BATTS

Reduces unwanted noise and delays fire from spreading between floors and rooms.

ADVANTAGES

Sound Control: Absorbs sound and improves wall assembly STC ratings by up to 10 dB.

Fire-Resistant: Melting point in excess of 1093˚C (2000˚F). Flame Spread of 0 and Smoke Developed of 0.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

AVAILABILITY*

Widths: 387mm (15.25"), 610mm (24")

Length: 1,219mm (48")

Thickness: 76mm (3")

*See complete data sheet at **www.jm.com.***

MinWool® Sound Attenuation Fire Batts (SAFB)

BATTS

Reduces sound transmission with lightweight, flexible batts.

ADVANTAGES

Sound Control: Absorbs sound and improves wall assembly STC ratings by up to 10 dB.

Fire-Resistant: Melting point in excess of 1093˚C (2000˚F). Flame Spread of 0 and Smoke Developed of 0.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

Compression Packaging: Get more product per bag, saving on storage and freight costs.

AVAILABILITY*

Widths: 406mm (16"), 610mm (24")

Length: 1,219mm (48")

Thicknesses: 138mm (1.5") – 203mm (8")

(Special sizes and thicknesses available upon request.Minimum order quantities may apply.)

MinWool® Safing

BATTS

Provides a fire-rated seal when installed between spandrel panel and floor slab.

ADVANTAGES

Fire-Resistant: Melting point in excess of 1093˚C (2000˚F).

Unfaced: Flame Spread of 0 and Smoke Developed of 0.
Faced: Flame Spread of 25 or less and Smoke Developed of 5 or less.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

(Available in Unfaced and Faced)

AVAILABILITY*

Width: 610mm (24")

Length: 1,219mm (48")

Thickness: 100mm (4")

(Special sizes and thicknesses available upon request.Minimum order quantities may apply.)

MINERAL WOOL

MinWool® Curtainwall

BOARDS

Provides superior fire resistance through curtainwall spandrel systems.

ADVANTAGES

Fire-Resistant: Melting point in excess of 1093˚C (2000˚F).

Unfaced: Flame Spread of 0 and Smoke Developed of 0.

Faced: Flame Spread of 25 or less and Smoke Developed of 5 or less.

Sound Control: Excellent sound absorption to reduce sound transmission.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

Densities: Curtainwall 40 (4.0 pcf) and Curtainwall 80 (8.0 pcf).

(Available in Unfaced and Faced)

AVAILABILITY*

Size: 610mm x 1,219mm (24"x 48") *(Special sizes available upon request. Minimum order quantities may apply.)*

Thicknesses: 38mm – 102mm (1.5" – 4")

Densities: 4pcf, 8pcf

MinWool® Window Wall

BOARDS

Provides superior fire resistance in glass and metal window wall systems.

ADVANTAGES

Fire-Resistant: Melting point in excess of 1093˚C (2000˚F).

Unfaced: Flame Spread of 0 and Smoke Developed of 0.

Faced: Flame Spread of 25 or less and Smoke Developed of 5 or less.

Sound Control: Excellent sound absorption to reduce sound transmission.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

(Available in Unfaced and Faced)

AVAILABILITY*

Size: 610mm x 1,219mm (24"x 48") *(Special sizes available upon request. Minimum order quantities may apply.)*

Thicknesses: 38mm – 102mm (1.5" – 4")

Densities: 3.5 pcf

*See complete data sheet at **www.jm.com.***

JM CladStone™ Water & Fire Block

BOARDS

Flame-resistant, continuous insulation for rainscreen applications.

ADVANTAGES

Water-Repellent: Repels water to ensure drainage when applied as part of a proper exterior wall cavity system.

Fire-Resistant: Melting point in excess of 2000˚F (1093˚C). Flame Spread of 0 and Smoke Developed of 0.

Durable Inorganic Fibres: No growth of fungi. No sustaining of vermin.

Densities: CladStone 45 (4.5 pcf), CladStone 60 (6.0 pcf), CladStone 80 (8.0 pcf) , and CladStone 110 (11.0 pcf)

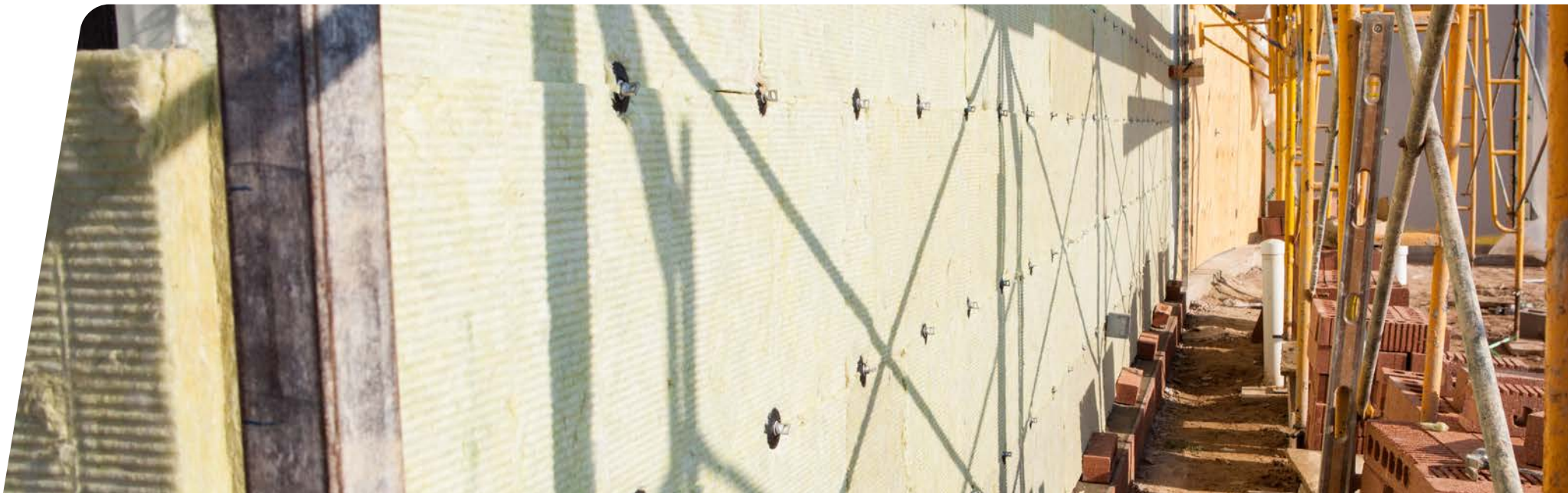
AVAILABILITY*

Thicknesses: 25 - 178mm (1" - 7")

Widths: 406mm (16"), 610mm (24")

Length: 1,219mm (48")

Densities: 4.5pcf, 6pcf, 8.0pcf, 11.0pcf



MINERAL WOOL SPECIFICATION COMPLIANCE

Product	Thermal Resistance ASTM C518	Flame Spread CAN/ULC-S102	Smoke Development CAN/ULC-S102	Water Vapour Sorption ASTM C1104	Odour Emission ASTM C1304	Corrosiveness ASTM C665	Fungi Resistance ASTM C1338	Combustion Characteristics CAN/ULC S114	ASTM C612 / ASTM C665	ASTM C356	ASTM C 1335	Smoulder Resistance CAN/ULC S129
TempControl®	RSI 2.5 (R-14), RSI 3.9 (R-22), RSI 4.9 (R-28)	0	0	5% or less by weight	Pass	Pass	Pass	Pass	N/A	N/A	N/A	Pass
Sound & Fire Block®	N/A											
MinWool® SAFB	RSI/R-value at 24°C (75°F), RSI 0.65 (R-3.7) per inch of thickness			<1% by weight; <0.02% by volume at 120°F (49°C), 95% RH					Type 1–4			
MinWool® Safing	N/A											
MinWool® Curtainwall 40 | 80	RSI/R-value RSI 0.7 (R-4) to RSI 0.74 (R-4.2) per inch											
MinWool® Window Wall												
CladStone™ Water & Fire Block 45 | 60	RSI/R-value RSI 0.76 (R-4.3) per inch			Absorbs 0.03% by volume					Type IA, IB, II, III, IVA, IVB	Linear shrinkage <2% 1200° F (650° C)	Shot content less than 25%	
CladStone™ Water & Fire Block 80 | 110	RSI/R-value RSI 0.78 (R-4.2) per inch			Absorbs 0.11% by volume								


Johns Manville
A Berkshire Hathaway Company
Fibreglass
Mineral Wool
Poliso Foam Sheathing

One source. One call. One shipment.

With the industry's most complete line of insulation solutions, JM is your one-stop shop. You can receive the complete combination of products you need, all on one truckload.

It's our way of adapting our business to best serve yours.

AP™ Foil-Faced Foam Sheathing

Provides moisture, heat and air control, and eliminates major thermal bridges that cause heat loss.†

†When installed properly.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer.

Water-Resistant Barrier: Meets the NBC acceptance criteria CCMC-13104-L.

Vapour Barrier: Class I vapour retarder at 25mm (1").

Lightweight: Easy to handle and can be cut with a utility knife or saw.

AVAILABILITY*

RSI/R-Values: RSI 0.48 (R-2.7) – RSI 5.09 (R-28)

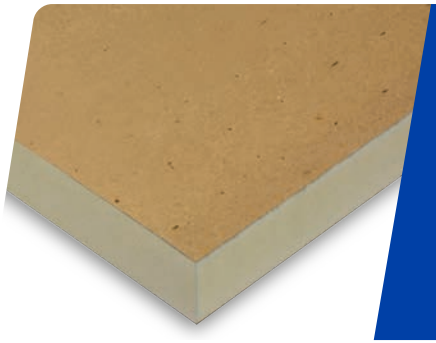
Sizes: 1,219mm (48") x 2,438mm (96"), 1,219mm (48") x 2,743mm (108"), 1,219mm (48") x 3,048mm (120")

Thicknesses: 13mm (.5") – 114mm (4")

Facings: Silver/Opaque

Please check Product Availability Listing for latest sizing and availability.

R-Panel® Roof Insulation



Rigid board used above the roof deck to provide high thermal efficiency.

ADVANTAGES

Thermally Efficient: Effective resistance to heat transfer.

Universal Facer: Compatible with BUR, modified bitumen and single-ply membrane systems.

Lightweight: Easy to handle and can be cut with a utility knife or saw.

Third-party certification with the PIMA Quality Mark™ for Long-Term Thermal Resistance (LTTR) Values

AVAILABILITY*

LTTR:* 1.00 / 5.7 25mm (1") – 4.16 / 23.6 102mm (4")

Size: 1,219mm (48") x 2,438mm (96")

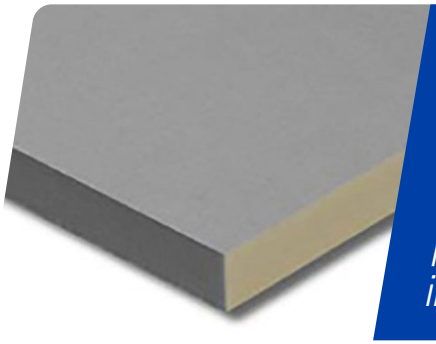
Thicknesses: 25mm (1") – 102mm (4")

Please check Product Availability Listing for latest sizing and availability.

*See complete data sheet at **www.jm.com**. **(°K•m2/W), (°F•ft2•h/BTU) Long-term thermal resistance (LTTR) values were determined in accordance with CAN/ULC S770 at 24°C (75°F).

Rigid polyisocyanurate foam sheathing insulation for use in commercial and residential construction where continuous insulation and/or high thermal efficiency is required. ***Where to use: AP Foil: interior and exterior walls, ceilings, and crawl spaces. R-Panel: roofs. AP Breathable Sheathing: exterior walls.***

AP™ Breathing Sheathing



Designed to be semi vapor permeable, and provides one of the highest R-values per inch of any rigid insulation.

ADVANTAGES

Thermally Efficient: One of the highest energy efficiencies, inch for inch with effective resistance to heat transfer.

Noncorrosive: Does not accelerate corrosion of pipes, wiring or metal studs.

Lightweight: Easy to handle and can be cut with a utility knife or saw.

AVAILABILITY*

RSI/R-Values: RSI 1.00 (R-5.7), RSI 1.50 (R 8.5), RSI 2.01 (R-11.4)

Sizes: 1,219mm (48") x 2,438mm (96")

Thicknesses: 25mm (R5.7), 38 mm (R-8.5), 51mm (R 11.4)

Facings: Coated glass facer

Please check Product Availability Listing for latest sizing and availability.

SHEATHING SPECIFICATION COMPLIANCE

Product	Standard	Flame Spread Rating CAN/ULC S102	Water Vapour Transmission ASTM E96	Compressive Strength ASTM D1621	Dimensional Stability ASTM D2126	Water Absorption ASTM C209	Service Temperature	Thermal Performance at 25mm
AP™ Foil-Faced Foam Sheathing	**CAN/ULC S704, Type 1, Class 1**	< 500 at 25mm	0.05 perms (3 ng/Pa-s-m²)	≥ 16 psi (110 kPa)	2% max, 7 days (length & width)	0.1% volume	-73° to 121°C (-100° to 250°F)	RSI/R-Value per ASTM C518
R-Panel® Roof Insulation	**CAN/ULC S704, Type II, Class 3**	< 500 at 25mm	< 1.5 perms (57.5 ng/Pa-s-m²)	1 perm, 57.2 ng/ (Pa•s•m2) (nom), 1.5 perm, 85.8 ng/ (Pa•s•m2) (max)		<1% volume		LTTR per CAN ULC S770
AP™ Breathing Sheathing	**CAN/ULC-S102, Type II, Class 3**	< 55/500 at 25 mm	> 1.0 perms (60 ng/Pa-s-m²)	> 20.3 psi (140 kPa)		≤1% volume		

Johns Manville
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