Specifier Services

717 17th St
Denver, CO 80202
RSSpecServices@jm.com
www.jm.com

10/16/2024

Re: DBH Olive Ave Roof Replacement

To Whom It May Concern:

Johns Manville (a Berkshire Hathaway Company) has been a Roofing Systems solution provider for 160 years and we take pride in the systems and products that we offer to the market. The JM PVC roofing solution has over 26 years of commercial experience and is utilized on many different building types including educational facilities, office building, airports, retail, industrial, and others.

We are submitting a pre-bid system approval request for roofing materials tailored to the above referenced project, to provide a JM PVC **60** or **80** roofing system.

Addressing Product Offering

- Johns Manville is proposing the following PVC roofing system that meets the criteria and intention of the specified roofing assembly:
- The roof assembly shall be composed of the following JM components:
  - Membrane, **JM PVC 60 or 80mil, fastened with High Load Fasteners and Plates**
  - Cover Board: **DEXcell Glass Mat Roof Board**, **fastened with UltraFast Fasteners and Plates**
  - Insulation: **ENRGY 3, loose laid**
  - Deck: **wood**
  - Wind uplift and coverage riders require approved attachment rates from JM Technical Services: 74mph
- These assemblies will be eligible for a **30 year No Dollar Limit Johns Manville Peak Advantage® Guarantee** once a Johns Manville Technical Representative inspects and approves the installed JM roofing system.
- Johns Manville is a Denver, Colorado based corporation with operations in North America and abroad.

Fiberglass vs. Polyester Reinforcements

a. Polyester reinforcements may be used in either fully adhered or mechanically fastened systems because of their tearing and elongation properties.

Johns Manville Specifier Services

Johns Manville offers a number of resources for specification services to accurately assess and develop the proper roofing assembly including system selection, technical assistance, and specification review.

We look forward to your favorable review and approval of this substitution request. If you should have any further questions, please do not hesitate to contact me at 303-978-2391 or you local sales representative.

Best Regards,

Colin Condon
Specifier Services Representative, Roofing Systems Group
Cc: Eric Smith, Darren Talmadge, Phillip Fernandez, Johns Manville

Att: Product Comparison Table
Data Sheets
Sample Warranty

ASTM D4434/D6754 Data Sheet Comparison

							JM PVC 60	JM PVC 80	Tremco TPA 45, 60, & 80
			Source				**Data Sheet Values**	**Data Sheet Values**	**Data Sheet Values**
			Manufacturer				**JM PVC**	**JM PVC**	**Tremco**
	Unit of Measure	Test Method					**60**	**80**	**TPA 45, 60, & 80**
All data is taken from manufacturer's website		**Reinforcement Type**	**ASTM D4434 Type II Requirements**	**ASTM D4434 Type III Requirements**	**ASTM D4434 Type IV Requirements**	**ASTM D6754 Requirements**	**Polyester Reinforced- ASTM D4434, Type III**	**Polyester Reinforced- ASTM D4434, Type III**	**Polyester Reinforced- ASTM D 4434, Type IV**
		Plasticizer type					**Elvaloy**	**Elvaloy**	**Elvaloy**
Thickness (Polyester Reinforced)	mil	ASTM D751	+/- 10% Nominal	+/- 10% Nominal	+/- 10% Nominal	+/- 10% Nominal	60 (Nominal)	80 (Nominal)	45/60/80
Thickness Above Scrim[A]	mil	D7635	16	16	16	7	26	38	Not Listed
Felt Weight	oz/yd		-	-	-	-	Not Applicable	Not Applicable	Not Applicable
Breaking Strength	lbf (N)	ASTM D751	55 (245)	200 (890)	250 (1112)	338 (1499)	361 (1,606)	418 (1,859)	300
Elongation at Break (Machine & Cross-Machine)	min %	ASTM D751	250/220	15/15	25/25	18/18	30	32	100/100
Seam Strength	% of breaking strength, min	ASTM D751	75	75	75	440 (1955)	100	100	Not Listed
Properties after Heat Aging, min	56 days @ 176 °F								
Heat Aged Breaking Strength	% of original	ASTM D3045	90	90	90	90	91	97	Not Listed
Heat Aged Elongation	% of original	ASTM D3045	90	90	90	90	94	90	Not Listed
Tensile Strength	psi	ASTM D638	-	-	-	1500	Not Listed	Not Listed	Not Listed
Seam Strength	(% of tensile strength)	ASTM D638	-	-	-	-	Not Listed	Not Listed	Not Listed
Heat Aged Tensile Strength	(% of original)	ASTM D638	-	-	-	-	Not Listed	Not Listed	Not Listed
Heat Aged Elongation Strength	(% of original)	ASTM D638	-	-	-	-	Not Listed	Not Listed	Not Listed
Tearing Resistance, min	lbf (N)	D1004 Type II	10 (45)	-	-	76 (338)	Not Applicable	Not Applicable	Not Applicable
Tearing Strength, min	lbf/in (N)	D751 Type III	-	45 (200)	90 (400)	-	110.6 (492)	81 (360)	100
Low Temperature Bend	No Cracks @	ASTM D2136	-30	-40	-40	-30	Pass	Pass	Pass
Linear Dimensional Changes	Max, % after 6 hrs. @ 176 °F	ASTM D1204	0.1	0.5	0.5	1.3	0.24	0.40	0.30%
Weight Change After Immersion	% change	ASTM D570	±3.0	±3.0	±3.0	6	0.12	0.41	Not Listed
Static Puncture Resistance	33lbf	ASTM D5602	Pass	Pass	Pass	Pass	Pass	Pass	Not Listed
Dynamic Puncture Resistance	J	ASTM D5635	Pass @ 20	Pass @ 20	Pass @ 20	Pass @ 10	Pass	Pass	Not Listed
Solar Reflectance, Initial	CRRC	ASTM E903, C1549, E1980	-	-	-	-	0.86	0.86	0.86
Solar Reflectance, 3 Year Aged	CRRC	ASTM E903, C1549, E1980	-	-	-	-	0.70	0.70	.70 (called "weathered)
Emissivity, Initial	CRRC	E408, C1371, Other	-	-	-	-	0.86	0.86	0.86
Emissivity, 3 Year Aged	CRRC	E408, C1371, Other	-	-	-	-	0.82	0.82	.82 (called "weathered)
Solar Reflective Index (SRI), Initial	CRRC, LEED	ASTM E1980, C1549	-	-	-	-	108	108	108
Solar Reflective Index (SRI), 3 Year Aged	CRRC, LEED	ASTM E1980, C1549	-	-	-	-	84	84	84
Accelerated Weathering, min		ASTM G151 & G154	5,000 hrs.	5,000 hrs.	5,000 hrs.				
Cracking (@7x magnification)	pass @ 5,000 hours	ASTM G154	none	none	none	none	Pass @ 40,000 hrs	Pass @ >40,000 hrs	Not Listed
Discoloration (by observation)	pass @ 5,000 hours	ASTM G154	-	-	-	-	Negligible	Negligible	Not Listed
Crazing (@7x magnification)	pass @ 5,000 hours	ASTM G154	none	none	none	none	Pass @ 40,000 hrs	Pass @ >40,000 hrs	Not Listed
Manufacturing Locations	-	-	-	-	-	-	Pawtucket, RI Lancaster, SC	Pawtucket, RI Lancaster, SC	Not Listed
Data Sheet Information:							Updated 01/2022	Updated 01/2022	Updated 07/2022
Estimated Market Entry Year							1990	1990	

Updated 12/09/2022

[A] Above the cross points of any fabric or fiber and the surace exposed to the weather.

[B] For reinforcing fabric only; elongation for PVC material shall be the same as Type II.

[C] For Type II products, dynamic puncture shall be evaluated at an engery level of 10 J min. For Type III product, dynamic puncture shall be evaluated at an energy level of 20 J min.

ASTM D4434 Type II (Fiberglass Reinforced)

ASTM D4434 Type III (Polyester Reinforced)

ASTM D4434 Type IV (Polyester Reinforced – thinner material)

ASTM D6754 (Polyester Reinforced)

JM PVC - 60 mil

Thermoplastic Polyvinyl Chloride Membrane

Meets the requirements of ASTM D 4434, Type III

Features and Components

Advanced Solid Phase Polymer Formulation: Using the optimal amount of Dow™ Elvaloy® KEE (Ketone Ethylene Ester) polymer to: ensure plasticizer retention, extend roof life *(exceeded 40,000 hours of accelerated weathering testing - ASTM G 154 requires 5,000 hours)*, and to reduce maintenance costs.

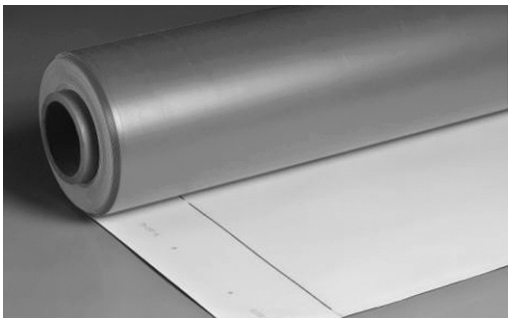
Patented Aramid-Reinforced Edge: Aramid fiber is woven into the fastening side of PVC membrane.

Non-wicking Reinforced Polyester Scrim: Our fully integrated manufacturing process adds tensile strength and toughness. Due to the non-wicking edge, sealant is not required.

Excellent Chemical Resistance: JM PVC is inherently resistant to oils, air conditioning coolants, fuels and grease.

Energy Savings: The White, Grey ES and Sandstone ES provide exceptional reflectivity and emissivity for energy savings.

JM Membranes are designed with a cap, core, and bottom in order to utilize recycled content. The cap, or top-side is produced with non-recycled content, and should always be install facing up. The cap is identified by the lap line and production code.



Component: **M** Membrane

Single Ply

Colors*

Grey	Grey ES	Sandstone	Sandstone ES
White	Charcoal		

* All colors not available as standard stocked items in all size configurations. Please call for minimums and lead times.

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP		SBS				
	HA	CA	HW	HA	CA	HW	SA	MF
	Do not use in multi-ply systems							

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
	Compatible with the selected single ply systems above									

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

Standard			Reflectivity	Emissivity
CRRC®	White	Initial	0.86	0.86
		3 Yr. Aged	0.70	0.82
	Sandstone ES	Initial	0.73	0.83
		3 Yr. Aged	0.58	0.82
	Grey ES	Initial	0.67	0.85
		3 Yr. Aged	0.54	0.82
CA Title 24	White	Pass	0.86	0.86
LEED® (SRI)	White	Initial	108	
		3 Yr. Aged	84	
	Sandstone ES	Initial	89	
		3 Yr. Aged	67	
	Grey ES	Initial	80	
		3 Yr. Aged	61	
Recycled Content	Post-consumer		0%	
	Post-industrial		0% - 10%	

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

Peak Advantage® Guarantee Information

Product Thickness	Terms
When used in most JM PVC Systems*	Up to 25 years

*Contact JM Technical Services for specific systems.

Codes and Approvals

Classified UL US

FM APPROVED

Miami-Dade County APPROVED
Miami-Dade County Product Control Approved

Installation/Application

Adhered | Mechanically Fastened | Hot Air Weld

Refer to JM PVC application guides and detail drawings for instructions.

Packaging and Dimensions

Size	Coverage
3.25' x 100' (1 m x 30.48 m) (white only)	325 ft² (30.19 m²)
5' x 100' (1.52 m x 30.48 m)	500 ft² (46.45 m²)
6.5' x 100' (1.98 m x 30.48 m)	650 ft² (60.38 m²)
10' x 100' (3.05 m x 30.48 m)	1000 ft² (92.9 m²)
12' x 100' (3.66 m x 30.48 m) (white only)**	1200 ft² (111.5 m²)

Widths	3.25'	5'	6.5'	10'	12'**
Rolls per Pallet	18	9	9	9	7
Pallet Weight - lb (kg)	2574 (1167.5)	1800 (816.5)	2574 (1167.5)	3865 (1753.1)	3920 (1778.1)
Pallets per Truck*	17	16	17	8	8
Producing Locations	Pawtucket, RI and Lancaster, SC				

*Assumes 48' flatbed truck and does not reflect pallets of accessories or impact of mixed sizes.
**12' - call for availability, lead-time, and minimums.

JM PVC - 60 mil

Thermoplastic Polyvinyl Chloride Membrane

Meets the requirements of ASTM D 4434, Type III

Tested Physical Properties

Physical Properties		ASTM Test Method	ASTM Requirements	JM PVC – 60 mil
Strength	Breaking Strength, min, lbf (N)	D 751	200 (890)	361 (1,606)
	Elongation at Break, min %	D 751	15	30
	Tearing Strength, min, lbf (N)	D 751	45 (200)	110.6 (492)
	Seam Strength, min, % of breaking strength	D 751	75	100
	Static Puncture Resistance, lbf (kg)	D 5602	Pass @ 33 (15)	Pass
	Dynamic Puncture Resistance, J	D 5635	Pass @ 20	Pass
Longevity	Thickness, min, in.	D 751	+/- 10% from Nominal	0.060 (Nominal)
	Thickness Over Scrim, min, in.	D 7635	0.016	0.026
	Water Absorption, max, %	D 570 modified	3.0	0.12
	Low Temperature Bend, °F	D 2136	No Cracks @ -40°F	Pass
Heat Aged Performance	Properties after Heat Aging, min	D 3045	56 days @ 176°F	
	Breaking Strength, % (after aging)	D 751	90	91
	Elongation, % (after aging)	D 751	90	94
	Linear Dimensional Change, max, % (after 6 hrs @ 176°F)	D 1204	0.5	0.24
Weather Performance	Accelerated Weathering, min	G 151 & G 154	5,000 hrs	
	Cracking (@ 7x magnification)	G 154	No Cracks	Pass @ 40,000 hrs
	Discoloration (by observation)	G 154	Negligible	Negligible
	Crazing (@ 7x magnification)	G 154	No Crazing	Pass @ 40,000 hrs
	Moisture Vapor Transmission	ASTM E 96, Proc B, Method A		0.02 g/m^2 per 24 hrs

Note: 60 mil MIN products offer a tighter thickness tolerance and will be manufactured no less than 60 mil.

RS-8921 1-22 (Replaces 7-21)

JM PVC-80 mil

Thermoplastic Polyvinyl Chloride Membrane

Meets the requirements of ASTM D 4434, Type III

Features and Components

Advanced Solid Phase Polymer Formulation: Using the optimal amount of Dow™ Elvaloy® KEE (Ketone Ethylene Ester) polymer to: ensure plasticizer retention, extend roof life *(exceeded 40,000 hours of accelerated weathering testing - ASTM G 154 requires 5,000 hours)*, and to reduce maintenance costs.

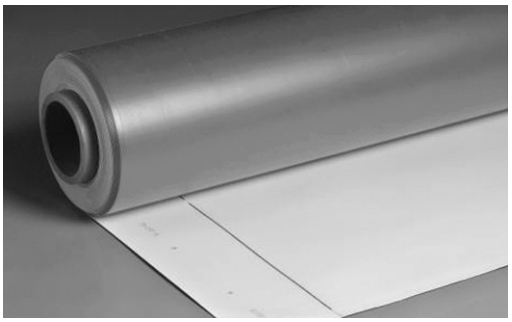
Patented Aramid-Reinforced Edge: Aramid fiber is woven into the fastening side of PVC membrane.

Non-wicking Reinforced Polyester Scrim: Our fully integrated manufacturing process adds tensile strength and toughness. Due to the non-wicking edge, sealant is not required.

Excellent Chemical Resistance: JM PVC is inherently resistant to oils, air conditioning coolants, fuels and grease.

Energy Savings: The White, Grey ES and Sandstone ES provide exceptional reflectivity and emissivity for energy savings.

JM Membranes are designed with a cap, core, and bottom in order to utilize recycled content. The cap, or top-side is produced with non-recycled content, and should always be install facing up. The cap is identified by the lap line and production code.



Component
M
Membrane
Single Ply

Colors*

Grey	Grey ES	Sandstone	Sandstone ES
White	Charcoal		

* All colors not available as standard stocked items in all size configurations. Please call for minimums and lead times.

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP		SBS					
	HA	CA	HW	HA	CA	HW	SA	MF	
	Do not use in multi-ply systems.								

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
	Compatible with the selected single ply systems above									

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

Standard			Reflectivity	Emissivity
CRRC®	White	Initial	0.86	0.86
		3 Yr. Aged	0.70	0.82
	Sandstone ES	Initial	0.73	0.83
		3 Yr. Aged	0.58	0.82
	Grey ES	Initial	0.67	0.85
		3 Yr. Aged	0.54	0.82
CA Title 24	White	Pass	0.86	0.86
LEED® (SRI)	White	Initial	108	
		3 Yr. Aged	84	
	Sandstone ES	Initial	89	
		3 Yr. Aged	67	
	Grey ES	Initial	80	
		3 Yr. Aged	61	
Recycled Content	Post-consumer		0%	
	Post-industrial		0% - 10%	

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

Peak Advantage® Guarantee Information

Product	Guarantee Term
When used in most JM PVC Systems*	Up to 30 years

*Contact JM Technical Services for specific systems.

Codes and Approvals

CLASSIFIED C UL US

FM APPROVED

MIAMI-DADE COUNTY APPROVED
Miami-Dade County Product Control Approved

Installation/Application

Adhered | Mechanically Fastened | Hot Air Weld

Refer to JM PVC application guides and detail drawings for instructions.

Packaging and Dimensions

Size			Coverage		
3.25' x 75' (1 m x 22.86 m) (white only)			243.75 ft² (22.65 m²)		
5' x 75' (1.52 m x 22.86 m) (white only)			375 ft² (34.84 m²)		
6.5' x 75' (1.98 m x 22.86 m)			487.5 ft² (45.29 m²)		
10' x 75' (3.05 m x 22.86 m)			750 ft² (69.68 m²)		
12' x 75' (3.66 m x 22.86 m)**			900 ft² (83.61 m²)		
Widths	3.25'	5'	6.5'	10'	12'**
Rolls per Pallet	18	9	9	9	7
Pallet Weight - lb (kg)	2340 (1061.4)	1800 (816.5)	2340 (1061.4)	3825 (1735.0)	3500 (1,587.6)
Pallets per Truck*	17	16	17	8	8
Producing Locations	Pawtucket, RI and Lancaster, SC				

*Assumes 48' flatbed truck and does not reflect pallets of accessories or impact of mixed sizes.
**12' - call for availability, lead-time, and minimums.

JM PVC - 80 mil

Thermoplastic Polyvinyl Chloride Membrane

Meets the requirements of ASTM D 4434, Type III

Tested Physical Properties

Physical Properties		ASTM Test Method	ASTM Requirements	JM PVC – 80 mil
Strength	Breaking Strength, min, lbf (N)	D 751	200 (890)	418 (1,859)
	Elongation at Break, min %	D 751	15	32
	Tearing Strength, min, lbf (N)	D 751	45 (200)	81 (360)
	Seam Strength, min, % of breaking strength	D 751	75	100
	Static Puncture Resistance, lbf (kg)	D 5602	Pass @ 33 (15)	Pass
	Dynamic Puncture Resistance, J	D 5635	Pass @ 20	Pass
Longevity	Thickness, min, in.	D 751	+/- 10% from Nominal	0.080 (Nominal)
	Thickness Over Scrim, min, in.	D 7635	0.016	0.038
	Water Absorption, max, %	D 570 modified	3.0	0.41
	Low Temperature Bend, °F	D 2136	No Cracks @ -40°F	Pass
Heat Aged Performance	Properties after Heat Aging, min	D 3045	56 days @ 176°F	
	Breaking Strength, % (after aging)	D 751	90	97
	Elongation, % (after aging)	D 751	90	90
	Linear Dimensional Change, max, % (after 6 hrs @ 176°F)	D 1204	0.5	0.4
Weather Performance	Accelerated Weathering, min	G 151 & G 154	5,000 hrs	
	Cracking (@ 7x magnification)	G 154	No Cracks	Pass @ >40,000 hrs
	Discoloration (by observation)	G 154	Negligible	Negligible
	Crazing (@ 7x magnification)	G 154	No Crazing	Pass @ >40,000 hrs
	Moisture Vapor Transmission	ASTM E 96, Proc B, Method A		0.01 g/m^2 per 24 hrs

Note: 80 mil MIN products offer a tighter thickness tolerance and will be manufactured no less than 80 mil.

RS-8923 1-22 (Replaces 11-21)

Flat & Tapered ENRGY 3®

Polyisocyanurate Roof Insulation

Meets the requirements of ASTM C 1289, Type II, Class 1, Grade 2 (20 psi)

- **ENRGY 3 / Tapered ENRGY 3**

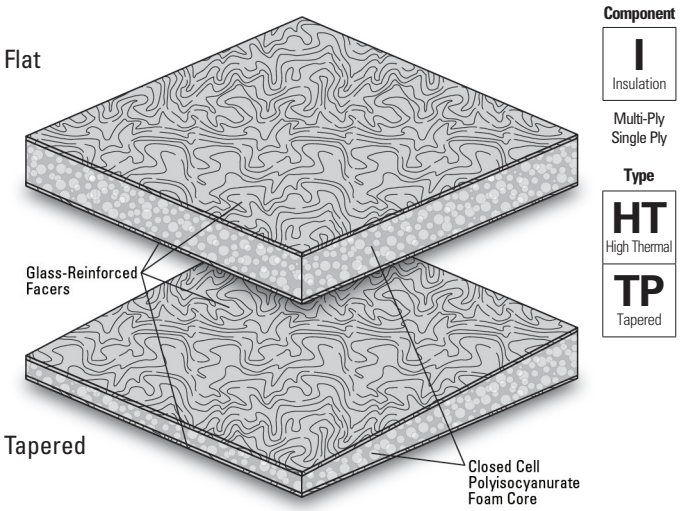
Grade 3 (25 psi)

- **ENRGY 3 25 PSI / Tapered ENRGY 3 25 PSI**

Features and Components

Glass-Reinforced Facers: Provides rigidity and resistance to indentation and crushing, and are compatible with BUR, modified bitumen and single ply membrane systems.

Closed Cell Polyisocyanurate Foam Core: Provides high R-value per inch in built-up, modified bitumen, metal roof and single ply roof systems, and approved for direct application to steel decks.



System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP		SBS				
	HA	CA	HW	HA	CA	HW	SA	MF
	Compatible with the selected Multi-Ply systems above							

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
	Compatible with all Single Ply systems									

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

LEED®	Recycled Content	Varies with thickness, see *Product Data and Packaging* table on next page.
Produced with a pentane blowing agent with zero ozone depletion and virtually no global warming potential.		

Peak Advantage® Guarantee Information

Systems
For use in approved JM Peak Advantage Roofing Guarantees

Codes and Approvals

- FM® Standards 4450/4470 Approvals (refer to FM RoofNav℠)
- UL® Standard 790, 263 and 1256 (refer to UL Roofing Materials system directory)
- Meets the requirements of CAN/ULC S704, Type 2 & 3, Class 3
- California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1341
- Third-party certification with the PIMA Quality Mark™ for Long-Term Thermal Resistance (LTTR) values

Installation/Application

Refer to the application instructions guidelines for proper utilization of this product.

Flute Span:

Width of Rib Opening:	Up to 2 5/8" (6.67 cm)	Up to 3 3/8" (8.57 cm)	Up to 4 3/8" (11.11 cm)
Insulation Thickness (min):	1.0" (2.54 cm)	1.2" (3.05 cm)	≥1.3" (3.30 cm)

Packaging and Dimensions

Flat Sizes[1]	4' x 4' (1.22 m x 1.22 m)	4' x 8' (1.22 m x 2.44 m)	
Tapered Size[2]	4' x 4' (1.22 m x 1.22 m)		
Producing Locations	Bremen, IN Hazleton, PA	Cornwall, ONT Jacksonville, FL	Fernley, NV Hillsboro, TX

1. For available thicknesses, see *Product Data and Packaging* table on page 2 of this data sheet. Other sizes available by special request, some sizes are not stocked but can be special ordered with minimum order quantities. Contact your JM Sales Representative for details.
2. Tapered ENRGY 3 and Tapered ENRGY 3 25 PSI are available in thicknesses of 1/2" to 4". Available profiles are shown on page 3 of this data sheet. In some regions extended panels are also available.

Johns Manville

Flat ENRGY 3®

Polyisocyanurate Roof Insulation

Typical Physical Properties

Test		ASTM	Values
Strength	Tensile Strength	C 209	500 psf (24 kPa) *(min)*, 730 psf (35 kPa) *(nom)*
	Compressive Resistance 10% Consolidation	D 1621	Grade 2: 20 psi (138 kPa), Grade 3: 25 psi (172 kPa) *(min)*
	Dimensional Stability Change, *(length & width)*	D 2126	0.5% *(nom)*, 2% *(max)*
Moisture	Moisture Vapor Permeance	E 96	<1 perm, 57.5 ng/(Pa•s•m^2)
	Water Absorption	C 209	1.0% *(max)*
Insulation	Service Temperature	D 1623	-100°F – 250°F (-73°C – 121°C)
	Flame Spread, *(foam core)*	E 84	20 - 30 *(nom)*, 75 *(max)*
	Smoke Developed, *(foam core)*	E 84	55 - 250 *(nom)*, 450 *(max)*

Product Data and Packaging

Thickness		Long-Term Thermal Resistance (LTTR) Values[1]		Recycled Content[2] 20 PSI / 25 PSI			Boards per Pallet	Square Feet per Pallet		Pallets per Truck[3]	
in.	mm	(hr•ft^2•°F)/BTU	m^2•°C/W	% Pre-Consumer	% Post-Consumer	% Total	4x4 and 4x8	4x4	4x8	4x4	4x8
1.0	25.4	5.7	1.00	5.3 / 5.2	31.8 / 29.9	37.1 / 35.1	48	768	1536	48	24
1.1	27.9	6.3	1.10	5.2 / 5.2	30.0 / 28.1	35.3 / 33.3	41	656	1312		
1.2	30.5	6.8	1.20	5.2 / 5.2	28.4 / 26.6	33.6 / 31.76	38	608	1216		
1.25	31.8	7.1	1.25	5.2 / 5.2	27.7 / 25.8	32.9 / 31.0	35	560	1120		
1.3	33.0	7.4	1.30	5.3 / 5.3	27.0 / 25.2	32.3 / 30.4	35	560	1120		
1.4	35.6	8.0	1.41	5.3 / 5.2	25.7 / 23.9	31.0 / 29.2	32	512	1024		
1.5	38.1	8.6	1.51	5.2 / 5.2	24.5 / 22.8	29.8 /28.0	32	512	1024		
1.6	40.6	9.1	1.61	5.2 / 5.2	23.4 / 21.7	28.7 / 27.0	28	448	896		
1.7	43.2	9.7	1.71	5.2 / 5.2	22.4 / 20.8	27.7 / 26.0	27	432	864		
1.75	44.5	10.0	1.76	5.2 / 5.2	22.0 / 20.4	27.2 / 25.6	27	432	864		
1.8	45.7	10.3	1.81	5.2 / 5.2	21.5 / 19.9	26.7 / 25.1	25	400	800		
1.9	48.3	10.8	1.91	5.2 / 5.2	20.7 / 19.1	25.9 / 24.3	24	384	768		
2.0	50.8	11.4	2.01	5.2 / 5.2	19.9 / 18.4	25.1 / 23.6	24	384	768		
2.1	53.3	12.0	2.11	5.2 / 5.2	19.2 / 17.7	24.4 / 22.9	21	336	672		
2.2	55.9	12.6	2.22	5.2 / 5.2	18.5 / 17.1	23.7 / 22.3	21	336	672		
2.3	58.4	13.2	2.32	5.2 / 5.2	17.9 / 16.5	23.1 / 21.7	20	320	640		
2.4	61.0	13.8	2.43	5.2 / 5.2	17.3 / 16.0	22.5 / 21.1	19	304	608		
2.5	63.5	14.4	2.53	5.2 / 5.2	16.8 / 15.4	22.0 / 20.6	19	304	608		
2.6	66.0	15.0	2.64	5.2 / 5.1	16.3 / 15.0	21.4 / 20.1	18	288	576		
2.7	68.6	15.6	2.74	5.2 / 5.1	15.8 / 14.5	21.0 / 19.7	17	272	544		
2.8	71.1	16.2	2.85	5.2 / 5.1	15.3 /14.1	20.5 / 19.2	16	256	512		
2.9	73.7	16.8	2.96	5.2 / 5.1	14.9 / 13.7	20.1 / 18.8	16	256	512		
3.0	76.2	17.4	3.06	5.2 / 5.1	14.5 / 13.3	19.7 / 18.4	16	256	512		
3.1	78.7	18.0	3.17	5.1 / 5.1	14.1 / 12.9	19.3 / 18.1	14	224	448		
3.2	81.3	18.6	3.28	5.1 / 5.1	13.8 / 12.6	18.9 / 17.7	14	224	448		
3.25	82.6	18.9	3.33	5.1 / 5.1	13.6 / 12.4	18.7 / 17.6	14	224	448		
3.3	83.8	19.2	3.39	5.1 / 5.1	13.4 / 12.3	18.6 / 17.4	14	224	448		
3.4	86.4	19.9	3.50	5.1 / 5.1	13.1 / 12.0	18.2 / 17.1	13	208	416		
3.5	88.9	20.5	3.61	5.1 / 5.1	12.8 / 11.7	17.9 / 16.8	13	208	416		
3.6	91.4	21.1	3.72	5.1 / 5.1	12.5 / 11.4	17.6 / 16.5	12	192	384		
3.7	94.0	21.7	3.82	5.1 / 5.1	12.2 / 11.1	17.3 / 16.3	12	192	384		
3.75	95.3	22.0	3.88	5.1 / 5.1	12.0 / 11.0	17.2 / 16.1	12	192	384		
3.8	96.5	22.3	3.94	5.1 / 5.1	11.9 / 10.9	17.0 / 16.0	12	192	384		
3.9	99.1	23.0	4.05	5.1 / 5.1	11.7 / 10.7	16.8 / 15.8	12	192	384		
4.0	101.6	23.6	4.16	5.1 / 5.1	11.4 / 10.4	16.5 / 15.5	12	192	384		
4.1	104.0	24.2	4.26	5.1 / 5.1	11.2 / 10.2	16.3 / 15.3	11	176	352		
4.2	107.0	24.9	4.39	5.1 / 5.1	10.9 / 10.0	16.0 / 15.1	11	176	352		
4.3	109.0	25.5	4.49	5.1 / 5.1	10.7 / 9.8	15.8 / 14.9	11	176	352		
4.4	112.0	26.1	4.60	5.1 / 5.1	10.5 / 9.6	15.6 / 14.7	10	160	320		
4.5	114.0	26.8	4.72	5.1 / 5.1	10.3 / 9.4	15.4 / 14.5	10	160	320		

1. The Long-Term Thermal Resistance (LTTR) values were determined in accordance with CAN/ULC S770 at 75°F (24°C). The ultimate R-Value of these products will depend on individual installation circumstances.

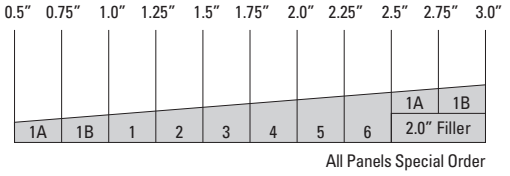
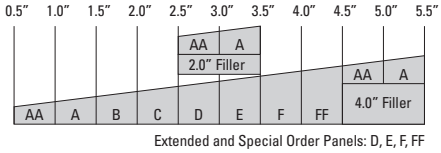
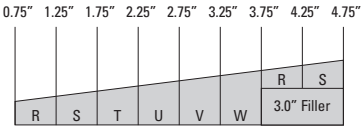
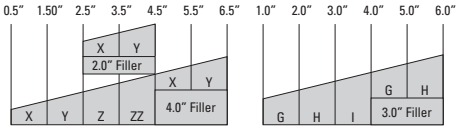
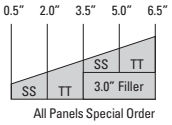
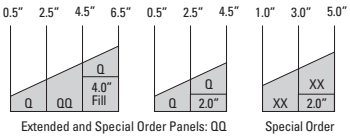
2. Value represents average results (Grade 2/Grade 3). 3. Assumes 48' flatbed truck.

Tapered ENRGY 3®

Polyisocyanurate Roof Insulation

Johns Manville Tapered Polyiso Offerings

Please refer to the previous page for typical physical properties.

Panel Desig.	Slope	Dimension		LTTR* Value Nominal	Pieces per Unit	Square Foot per Unit	Brd Ft per Unit	Slope Profiles
		Thin	Thick					
1/16 in/ft (5.2 mm/m)								
1A	1/16	0.5	0.75	3.6	70	1120	700	 All Panels Special Order
1B	1/16	0.75	1	5.0	50	800	700	
1	1/16	1	1.25	6.4	38	608	684	
2	1/16	1.25	1.5	7.8	32	512	704	
3	1/16	1.5	1.75	9.3	28	448	728	
4	1/16	1.75	2	10.7	22	352	660	
5	1/16	2	2.25	12.1	20	320	680	
6	1/16	2.25	2.5	13.6	18	288	684	
1/8 in/ft (10.4 mm/m)								
AA	1/8	0.5	1	4.3	64	1024	768	 Extended and Special Order Panels: D, E, F, FF
A	1/8	1	1.5	7.1	38	608	760	
B	1/8	1.5	2	10.0	26	416	728	
C	1/8	2	2.5	12.9	20	320	720	
D**	1/8	2.5	3	15.9	16	256	704	
E**	1/8	3	3.5	18.9	14	224	728	
F**	1/8	3.5	4	22.1	12	192	720	
FF**	1/8	4	4.5	25.3	10	160	680	
R	1/8	0.75	1.25	5.7	44	704	704	 All Panels Special Order
S	1/8	1.25	1.75	8.6	30	480	720	
T	1/8	1.75	2.25	11.4	22	352	704	
U	1/8	2.25	2.75	14.4	16	256	640	
V	1/8	2.75	3.25	17.4	14	224	672	
W	1/8	3.25	3.75	20.5	12	192	672	
3/16 in/ft (15.6 mm/m)								
J	3/16	1	1.75	7.8	32	512	704	
K	3/16	1.75	2.5	12.1	20	320	680	
L**	3/16	2.5	3.25	16.6	16	256	736	
M**	3/16	3.25	4	21.2	12	192	696	
JJ	3/16	0.5	1.25	5.0	52	832	728	
KK	3/16	1.25	2	9.3	28	448	728	
LL**	3/16	2	2.75	13.6	18	288	691	
MM**	3/16	2.75	3.5	18.2	14	224	694	
1/4 in/ft (20.8 mm/m)								
G	1/4	1	2	8.6	32	512	768	
H	1/4	2	3	14.4	18	288	720	
I**	1/4	3	4	20.5	12	192	672	
X	1/4	0.5	1.5	5.7	48	768	768	
Y	1/4	1.5	2.5	11.4	24	384	768	
Z**	1/4	2.5	3.5	17.4	16	256	768	
ZZ**	1/4	3.5	4.5	23.6	12	192	768	
3/8 in/ft (31.2 mm/m)								
SS	3/8	0.5	2	7.1	36	576	720	
TT**	3/8	2	3.5	15.9	16	256	704	
1/2 in/ft (41.6 mm/m)								
Q	1/2	0.5	2.5	8.6	32	512	768	
QQ**	1/2	2.5	4.5	20.5	12	192	672	
XX	1/2	1	3	11.4	22	352	704	

* (hr•ft²•°F/Btu)

** Extended panels require less adhesive and less labor.

Tapered Recycle Content:

Recycled content is dependent upon average thickness. To calculate, match the average thickness of Tapered ENRGY 3 to the thickness of Flat ENRGY 3. Use the number from Flat ENRGY 3 as your recycled content.

DEXcell® Glass-Mat Roof Board

Coated Glass-Mat Faced Gypsum Cover Board

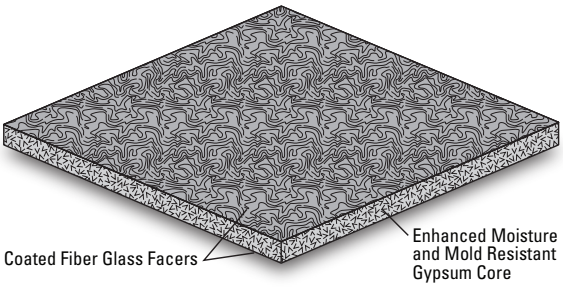
Meets the requirements of ASTM C 1177

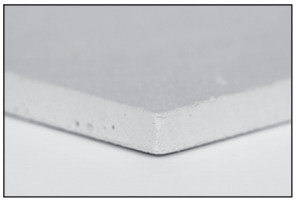
Features and Components

Handleability: Coated fiberglass facer ideal for mechanically fastened systems improves handling and strength. Scores and snaps easily.

Fire Performance: FM Class 1 for fire barrier requirements and UL Class A unlimited slope with excellent surface burning characteristics. 5/8" thickness meets the requirements of Type X per ASTM C 1177.

Moisture and Mold Resistance: Enhanced mold resistant core and coated fiberglass facers provide mold and mildew resistance per ASTM-D 3273.





Component
B Cover Board
Single Ply

Type
GY Gypsum
LT Low Thermal

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
	Do not use in Multi-Ply systems							

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems	Guarantee Term*
When used in most single ply systems	10, 15, or 20 years

* Contact JM Technical Services for specific systems or terms over 20 years.

Codes and Approvals

CLASSIFIED C UL US

FM APPROVED

MIAMI-DADE COUNTY APPROVED
Miami-Dade County Product Control Approved

Installation/Application

Mechanically Fastened

Refer to the Application Guides and Detail Drawings for instructions.

Packaging and Dimensions

Size	4' x 4' (1.22 m x 1.22 m)		
Thickness, nom	¼" (6.4 mm)	½" (12.7 mm)	⅝" (15.9 mm)
Weight/Board, nom	19 lb (8.6 kg)	32 lb (14.5 kg)	40 lb (18.2 kg)
Coverage/Pallet	960 ft² (89 m²)	768 ft² (71 m²)	704 ft² (65 m²)
Boards/Pallet	60	48	44
Pallet Weight	1,200 lb (544 kg)	1,612 lb (731 kg)	1,964 (891 kg)
Pallets per Truck*	40	30	24
Size	4' x 8' (1.22 m x 2.44 m)		
Thickness, nom	¼" (6.4 mm)	½" (12.7 mm)	⅝" (15.9 mm)
Weight/Board, nom	38 lb (17.2 kg)	64 lb (29.0 kg)	80 lb (36.3 kg)
Coverage/Pallet	1408 ft² (131 m²)	960 ft² (89 m²)	960 ft² (89 m²)
Boards/Pallet	44	30	30
Pallet Weight	1760 lb (798 kg)	2016 lb (914 kg)	2678 lb (1215 kg)
Pallets per Truck*	27	24	18
Producing Location	Waukegan IL, Savannah, GA		

* Assumes 48' flatbed truck.

Refer to the Safe for Use instructions and product label prior to using this product. The Safe for Use instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Note: Technical information on this data sheet is intended to be used as a general guideline only and is subject to change without notice. Contact your JM Sales Representative for further details.

RS-5590 2-20 (Replaces 5-16)

DEXcell® Glass-Mat Roof Board

Coated Glass-Mat Faced Gypsum Cover Board

Meets the requirements of ASTM C 1177

Typical Physical Properties

Test		ASTM	DEXcell Glass-Mat Roof Board		
			¼" (6.35 mm)	½" (12.7 mm)	⅝" (15.9 mm)
Strength	Compressive Strength, psi (kPa), *nom*	C 473	900 (6,205)		
	Flexural Strength, lb, parallel, *min*	C 473	40	80	100
	Bending Radius, ft (m), *max*	NA	4 (1.2)	6 (1.8)	8 (2.4)
Moisture	Moisture Vapor Permeance, perms (ng/(Pa•s•m²), *max*	E 96	25 (1,429)	24 (1,371)	23 (1,314)
	Water Absorption, % by wt, *max*	C 1177	10		
	Mold Resistance	D 3273	10		
Installation	Flute Span, in (cm), *max*	E 661	2 ⅝ (6.7)	5 (12.7)	8 (20.3)
	Weight, lb/ft² (kg/m²), *nom*	NA	1.2 (5.9)	2.0 (10)	2.5 (12)

Thermal Performance

Thickness		Nominal R-Value (Resistance)	
in.	mm	(hr•ft²•°F)/BTU	m²•°C/W
¼	6.4	0.32	0.056
½	12.7	0.45	0.079
⅝	15.9	0.56	0.099

Test	ASTM	DEXcell Glass-Mat Roof Board
Flame Spread	E 84	0
Smoke Developed	E 84	0

Refer to the Safe for Use instructions and product label prior to using this product. The Safe for Use instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

Note: Technical information on this data sheet is intended to be used as a general guideline only and is subject to change without notice. Contact your JM Sales Representative for further details.

RS-5590 2-20 (Replaces 5-16)

ULTRAFAST® PRE-ASSEMBLED FASTENERS AND PLATES

Case-Hardened Steel, Polymer-Coated Fasteners, Galvalume® Metal and Locking Plastic Plates

Features and Components

The UltraFast Pre-Assembled Fastener is a #12, case-hardened steel, polymer-coated fastener with a buttress thread design that provides maximum pullout values and minimizes fastener backout.. Available with a #3 Phillips head or ¼" (6.35 mm) hex head (available by special order only). The drill point is designed for quick installation in new or re-roof applications, and provides exceptional drilling capability in higher tensile decks. The UltraFast Locking Plastic Plate prevents fastener pop-up.

Use: Insulation

Material: Fasteners - Case-Hardened Steel, Polymer-Coated Plates - Galvalume®*-Coated Steel or Plastic

Gauge: #12

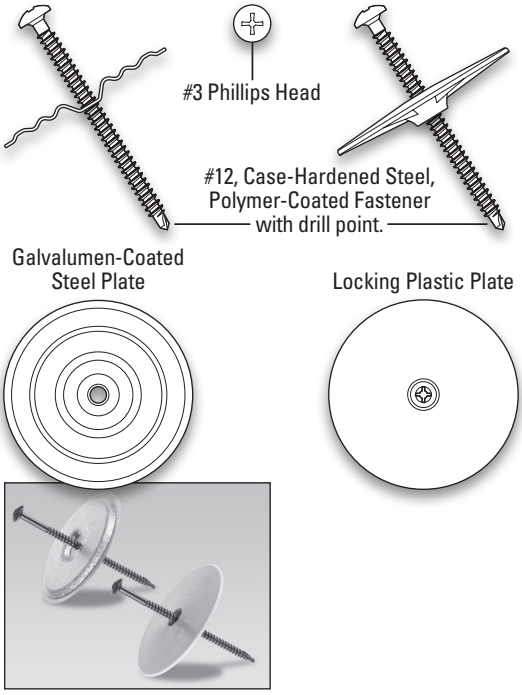
Head: #3 Phillips Head (¼" (6.35 mm) Hex Head is available by special order only)

Plates: 3" (7.62 cm) Round Locking Plastic or Round Metal

Colors: Blue (fasteners), Grey (metal plates), Blue (plastic plates)

Deck Types: Wood or 18 - 24 gauge (1.25 mm - 0.56 mm) Metal.

* Galvalume is a registered trademark of BIEC International, Inc. and some of its licensed producers.



Component
F Fastening

Type
I Insulation
Multi-Ply
Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

	BUR		APP		SBS				
Multi-Ply	HA	CA	CA	HW	HA	CA	HW	CA	MF
	Use to fasten Insulation in all Multi-Ply systems								

	TPO		PVC		EPDM		
Single Ply	MF	FA	MF	FA	MF	FA	BA
	Use to fasten Insulation in the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Recycled Content	This steel based product contains a minimum of 25% post consumer recycled materials by weight

Peak Advantage® Guarantee Information

Systems	Guarantee Term
When used in 60 to 80 mil JM TPO systems*	20 years

* Approved to use with any Peak Advantage Guarantee.

Codes and Approvals*

FM APPROVED

MIAMI-DADE COUNTY APPROVED
Miami-Dade County Product Control Approved

*Fastener approvals are based on system approvals

Installation/Application

The UltraFast Pre-Assembled must penetrate steel decks a minimum of 3/4", wood plank decks a minimum of 1". and 1/2" through the underside for plywood decks. Drive the fastener until a slight depression is seen around the plate, or with very rigid insulation boards, drive until the plate begins to dimple.

Packaging and Dimensions

Sizes	Quantity/Container
Fasteners: 1⅝" to 8" (4.13 cm to 20.32 cm) length A bit is provided in each box Plates: 3" (7.6 cm) Round Metal or Plastic	1,000/box
Producing Locations*	Agawam, MA & Itasca, IL

* The point of manufacture for fasteners and plates varies depending on the specific part. Call your local JM sales professional for assistance.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

HIGH LOAD PRE-ASSEMBLED FASTENERS AND PLATES

Roof Membrane Fastener

Features and Components

High Load Fasteners are #15 fasteners with a #3 Phillips head. The point is designed for quick installation in new and re-roof applications. High Load Fasteners are pre-assembled with FM Global® approved High Load Plates.

High Load Plates are 2⅜" (6.03 cm) round, 20-gauge (0.9 mm) Galvalume®*-coated steel discs.

Use: Membranes

Material: High Load Fastener - Case-hardened steel
High Load Plate - Galvalume-Coated Steel

Gauge: #15

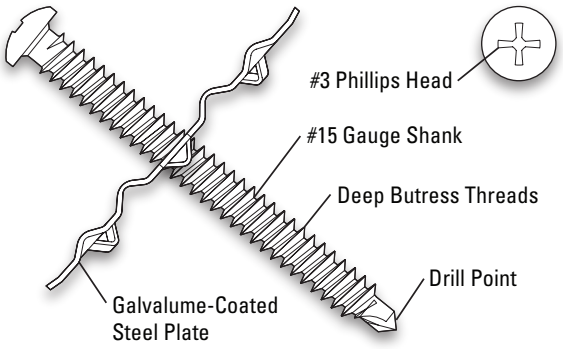
Head: #3 Phillips head

Plate: 2⅜" (6.03 cm) round

Color: Blue (fasteners), Grey (plates)

Deck Type: Wood or 18 - 24 gauge (1.25 mm - 0.56 mm) Metal.

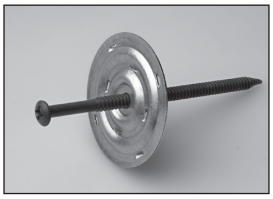
* Galvalume is a registered trademark of BIEC International, Inc. and some of its licensed producers.



Component: F Fastening

Type: M Membrane

Multi-Ply
Single Ply



System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	CA	MF
	Use to fasten select base sheets in the selected Multi-Ply systems above								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Use to fasten Membranes in the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Recycled Content	This steel based product contains a minimum of 25% post consumer recycled materials by weight

Peak Advantage® Guarantee Information

Systems
Approved to use with any Peak Advantage Guarantee

Codes and Approvals*

FM APPROVED

MIAMI-DADE COUNTY APPROVED
Miami-Dade County Product Control Approved

*Fastener approvals are based on system approvals

Installation/Application

Steel deck: minimum 3/4" penetration

Wood deck: minimum 1" penetration

Packaging and Dimensions

Fastener Sizes	Quantity per Container*
2" (5.08 cm)	500/pail
3" to 8" (7.6 cm to 20.3 cm)	250/pail
Plate Size	**Quantity per Container**
2⅜" (6.03 cm) round	Per fastener length above
Producing Locations**	Agawam, MA and Itasca, IL

* A bit is provided in each pail.

**The point of manufacture for fasteners and plates varies depending on the specific part. Call your local JM sales professional for assistance.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

EXTRA HIGH LOAD FASTENERS AND PLATES

Thermoplastic Membrane Fastener

Features and Components

Extra High Load Fasteners are #21 fasteners with a #3 Phillips head. The point is designed for quick installation in new and re-roof applications. Extra High Load Fasteners are only compatible with Extra High Load Plates.

The Extra High Load Plate is a 3" (7.62 cm) diameter, Galvalume®*-coated steel plate with eye hooks. The Extra High Load Plate incorporates an oversized diameter hole to accommodate the larger wire size of the Extra High Load Fastener.

Use: Thermoplastic Membranes

Material: Extra High Load Fastener - Case-hardened steel
Extra High Load Plate - Galvalume-Coated Steel

Gauge: #21

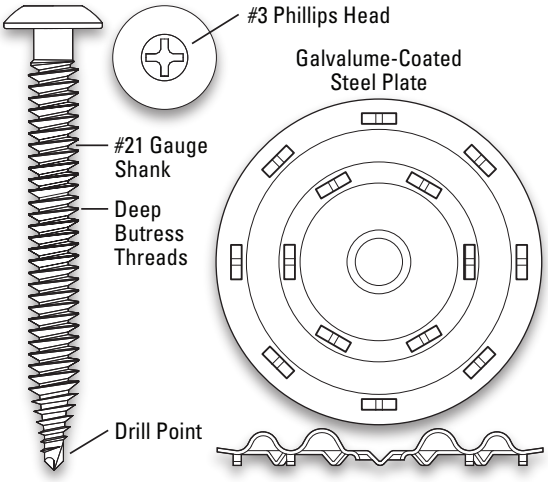
Head: #3 Phillips head

Plate: 3" (7.6 cm) round

Color: Black (fasteners), Grey (plates)

Deck Types: Wood or 18 - 24 gauge (1.25 mm - 0.56 mm) Metal.

* Galvalume is a registered trademark of BIEC International, Inc. and some of its licensed producers.



Component: F Fastening

Type: M Membrane, Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	CA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Use to fasten Membranes in the selected Single Ply system above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Recycled Content	This steel based product contains a minimum of 25% post consumer recycled materials by weight

Peak Advantage® Guarantee Information

Systems
Approved to use with any Peak Advantage Guarantee

Codes and Approvals*

FM APPROVED

Miami-Dade County Product Control Approved

*Fastener approvals are based on system approvals

Installation/Application

The Extra High Load Fastener is compatible with the Extra High Load Plate only.

Steel deck: minimum 3/4" penetration

Wood deck: minimum 1" penetration

Packaging and Dimensions

Fastener Sizes	Quantity per Container*
2" to 3" (5.1 cm to 7.6 cm),	1,000/pail
4" to 6" (10.2 cm to 15.2 cm)	500/pail
7" to 8" (17.8 cm to 20.32 cm)	250/pail
Plate Size	**Quantity per Container**
3" (7.6 cm) round	500/pail
Producing Locations**	Agawam, MA and Itasca, IL

* A bit is provided in each pail.

**The point of manufacture for fasteners and plates varies depending on the specific part. Call your local JM sales professional for assistance.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM SINGLE PLY LVOC CAULK

Features and Components

Use: To seal the edges around flashing terminations, peel and stick products and exposed edges of JM membrane cement splices.

Type: One-part, elastomeric sealant.

Colors: Black or White

Component
SE Sealant

Type
M Membrane
FL Flashing

Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
	Do not use in Multi-Ply systems							

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Used to seal Membrane laps and Flashings in all Single Ply systems						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Maximum VOC	<450 g/l by calculation

Physical Properties

Weight/unit		Sag/Slump - ASTM D2202
11.8 lbs/gal (1.41 kg/l)		No Sag
Press Flow/Extrusion Rate - (ASTM D2452)*		
45°F (7.2°C)	70°F (21.1°C)	95°F (35.0°C)
5.3 sec/ml	2.8 sec/ml	1.4 sec/ml

* Tested values. Results can vary depending on product age and conditioning.

Precautions

Johns Manville Single Ply LVOC Caulk is a combustible material and should be shipped and stored away from open flames, heat or sources of ignition. Keep all pails tightly sealed while in storage. It should be used only in well-ventilated areas. It may cause eye, skin and respiratory irritation, and is harmful or fatal if swallowed. Avoid contact with skin. Use impervious clothing and rubber gloves to avoid prolonged or repeated contact with skin. Read the container label and follow all safety instructions.

Installation/Application

Bead

- Apply to clean, dry, smooth substrates between 40°F and 120°F (4°C and 48°C).
- Refer to the application instructions guidelines for proper utilization of this caulk.

Packaging and Coverage

Container Size	Box of 30 - 10.3 oz (304.6 ml) tubes
Shipping Weight *(approx.)*	22 lb (9.9 kg)/box
Coverage Rate* *(approx.)*	20 lin ft (6.09 lin m) per tube
Boxes per Pallet	36

* Coverage, open and dry time rates can vary dramatically depending on the particular substrate and environmental conditions. Coverage rates stated herein are approximate only.

Storage

Shelf Life	12 months from manufacture date
Storage Conditions	Clean, dry, indoor environment, out of direct sunlight, in an unopened container
Temperature Range	60°F – 80°F (16°C – 27°C) Protect from freezing

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC MEMBRANE ADHESIVE

(Low VOC)

Features and Components

Use: For adhering JM PVC membranes to approved substrates. *Do not use on fleece-backed membranes.*

Type: One-part, synthetic polymer-based membrane adhesive.

Substrates: Compatible with approved insulations and cover boards, wood substrates, concrete, and light-weight concrete decks.

Color: Amber

Component
AD
Adhesive

Type
M
Membrane
Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP		SBS				
	HA	CA	HW	HA	CA	HW	SA	MF
	Compatible with the selected Multi-Ply systems above							

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
	Compatible with the selected Single Ply systems above									

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

VOC	199.4 g/l (EPA Method 24)
This product may be used in jurisdictions limiting VOC (volatile organic compounds) content of single ply roofing adhesive to no greater than 250 g/l.	

Physical Properties

Property	JM PVC Membrane Adhesive (Low VOC)
Weight per Unit	7.08 lb/gal (0.85 kg/l)
Viscosity	1,800 - 2,400 cps
Specific Gravity	0.849

Precautions

This product is flammable. Do not use for splicing. Do not apply adhesive near seams or splices where a hot-air welder will be used. Adhesive contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided, and the recommended personal protective equipment should be worn.

Installation/Application

Long Nap Roller

- Apply when the ambient and substrate temperature is 40°F (5°C) and rising.
- Refer to the application instructions guidelines for proper utilization of this adhesive.

Packaging and Coverage

Container Size	5 gal (18.9 l) pail
Shipping Weight *(approx.)*	37 lb (17.0 kg)
Pails per Pallet	45
Pallet Weight	1,837 lb (833.3 kg)
Pallets per Truck	22
Coverage Rate* *(two sided)*	50 ft² to 90 ft²/gal (1.23 m² to 2.03 m²/l)

* Coverage, open and dry time rates can vary dramatically depending on the particular substrate and environmental conditions. Coverage rates stated herein are approximate only. If FM Global® or UL® approval is required, consult specific RoofNav℠ or the UL Certifications Directory for specific application rates.

Storage

Shelf Life	12 months from manufacture date
Storage Conditions	Clean, dry, indoor environment in an unopened container
Temperature Range	60°F – 80°F (16°C – 27°C) - Protect from freezing

Exposure Window

Johns Manville recommends immediate and complete use upon opening. Use open containers within 48 hours of opening. Replace lid on can when not in use. Adhesive that has changed color or viscosity is no longer usable.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC EDGE SEALANT

Features and Components

Use: To seal edges of JM PVC membrane seams after the membrane has been welded to itself or to JM PVC-Coated Metal.

Type: One-part, membrane edge sealing agent.

Color: Clear

Component
SE Sealant

Type
M Membrane
Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	CA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Used to seal Membrane edges in the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Maximum VOC	757.3 g/l

Physical Properties

Property	JM PVC Edge Sealant
Weight per Unit *(approx.)*	7.8 lb/gal (0.935 kg/l)
Vapor Pressure	143 mm Hg
Specific Gravity	0.94

Precautions

Johns Manville PVC Edge Sealant is a combustible material and should be shipped and stored away from open flames, heat or sources of ignition. Keep all bottles tightly sealed while in storage. It should be used only in well-ventilated areas. It may cause eye, skin and respiratory irritation, and is harmful or fatal if swallowed. Avoid contact with skin. Use impervious clothing and rubber gloves to avoid prolonged or repeated contact with skin. Read the container label and follow all safety instructions.

Installation/Application

Bead

Refer to the application instructions guidelines for proper utilization of this sealant.

Packaging and Coverage

Container Size	Box of twelve 16 oz (473 ml) bottles
Shipping Weight *(approx.)*	14 lb (6.4 kg)/box
Boxes per Pallet	60
Pallet Weight	900 lb (kg)
Pallets per Truck	22
Coverage Rate* *(approx.)*	100 lin ft/16 fl oz (30.48 m/473 ml) with 1⁄8" (3.18 mm) bead

* Coverage, open and dry time rates can vary dramatically depending on the particular substrate and environmental conditions. Coverage rates stated herein are approximate only. If FM Global® or UL® approval is required, consult specific RoofNav℠ or the UL Certifications Directory for specific application rates.

Storage

Shelf Life	12 months from manufacture date
Storage Conditions	Clean, dry, indoor environment, unopened container
Temperature Range	60°F – 80°F (16°C – 27°C) - Protect from freezing

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM EPDM/PVC POURABLE SEALER

Features and Components

Use: JM EPDM/PVC Pourable Sealer is used as a penetration pocket filler.

Type: Two-part polyurethane sealant.

Colors: Part A: Black
Part B: Amber

Component
SE Sealant

Type
FP Penetration
Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Used to fill Penetration Pockets in the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Maximum VOC	Part A & B: 0 g/l

Physical Properties

Property		JM EPDM/PVC Pourable Sealer
Percent Volatile	Part A	0%
	Part B	0%
Specific Gravity @ 77°F (25°C)	Part A	1.51
	Part B	1.24
Vapor Pressure	Part A	< 0.001@ 68°F (20°C)
	Part B	<1x10-5 mm Hg @ 77°F (25°C)

Precautions

Johns Manville EPDM/PVC Pourable Sealer is a combustible material and should be shipped and stored away from open flames, heat or sources of ignition. Keep all cans tightly sealed while in storage. It should be used only in well-ventilated areas. It may cause eye, skin and respiratory irritation, and is harmful or fatal if swallowed. Avoid contact with skin. Use impervious clothing and rubber gloves to avoid prolonged or repeated contact with skin. Read the container label and follow all safety instructions.

Installation/Application


Pour

- Apply between temperatures of: 40° to 90° Do Not Thin.
- Refer to the application instructions guidelines for proper utilization of this sealant.

Packaging and Coverage

Container Sizes	Box of three kits: Part A: 0.75 gal (2.84 l) can Part B: 0.5 pint (0.24 l) can
Weight per Can	Part A: 8.7 lb (3.95 kg) Part B: 0.57 lb (0.26 kg)
Shipping Weight *(approx.)*	32 lb (14.5 kg)/box
Boxes per Pallet	45
Pallet Weight *(approx.)*	1,500 lb (681.8 kg)
Pallets per Truck	8 *(depends on order size)*

Storage

Shelf Life	12 months from manufacture date
Storage Conditions	Clean, dry, indoor environment in an unopened container
Temperature Range	60°F – 75°F (16°C – 24°C) - Protect from freezing

Exposure Window

Workable pot life after mixing is approximately 30 minutes at 72°F (22°C). The material begins to cure firmly 2 hours after mixing.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM Single Ply Membrane Cleaner
(Low VOC)

Features and Components

Use: To remove dirt, asphalt or other contaminants from JM TPO and PVC single ply membranes to ensure a good weld or bond. Can be used prior to applying TPO Membrane Primer for peel and stick applications.

Type: One-part, low VOC solvent, membrane cleaning agent.

Color: Clear

Component
CL
Cleaner

Type
M
Membrane
Single Ply

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP			SBS									
	HA		CA	HW	HA	CA	HW	SA	MF						
	Do not use in multi-ply systems														
Single Ply	TPO				PVC			EPDM							
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA					
	Used to clean membranes in the selected single ply systems above														

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

Maximum VOC	< 20 g/l
This product may be used in jurisdictions limiting VOC (volatile organic compounds) content of single ply roofing adhesive to no greater than 250 g/l.	

Physical Properties

Property	JM Single Ply Membrane Cleaner (Low VOC)
Weight per Unit *(approx.)*	7.5 lb/gal (0.90 kg/l)
Viscosity	0.32 mPa
Specific Gravity	0.790

Precautions

Johns Manville Single Ply Membrane Cleaner (Low VOC) is a combustible material and should be shipped and stored away from open flames, heat or sources of ignition. Keep all pails tightly sealed while in storage. It should be used only in well-ventilated areas. It may cause eye, skin and respiratory irritation, and is harmful or fatal if swallowed. Avoid contact with skin. Use impervious clothing and rubber gloves to avoid prolonged or repeated contact with skin. Read the container label and follow all safety instructions.

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the web at www.jm.com/roofing. The physical and chemical properties of the product 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. Check with the regional sales representative nearest you for current information.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville roofing products and systems, visit www.jm.com/terms-conditions.

Installation/Application


Natural Fiber Cloth


Scubber Pad

Refer to the application instructions guidelines for proper utilization of this cleaner.

Packaging and Coverage

Container Sizes	Box of 4 1 gal (3.78 l) pails	5 gal (18.9 l) pail
Shipping Weight *(approx.)*	32 lb (14.5 kg)	48 lb (21.8 kg)
Containers per Pallet	36	36
Pallet Weight	1,202 lb (545.2 kg)	1,387 lb (629.1 kg)
Pallets per Truck	26	22
Coverage Rate* *(approx.)*	400 ft²/gal (9.82 m²/l)	

* Coverage, open and dry time rates can vary dramatically depending on the particular substrate and environmental conditions. Coverage rates stated herein are approximate only. If FM Global® or UL® approval is required, consult specific RoofNav℠ or the UL Certifications Directory for specific application rates.

Storage

Shelf Life	12 months from manufacture date
Storage Conditions	Clean, dry, indoor environment, out of direct sunlight, in an unopened container
Temperature Range	60°F – 80°F (16°C – 27°C) - Protect from freezing

Exposure Window

Johns Manville recommends using open containers within designated shelf life. Replace lid on can when not in use.

JM PVC DETAIL MEMBRANE

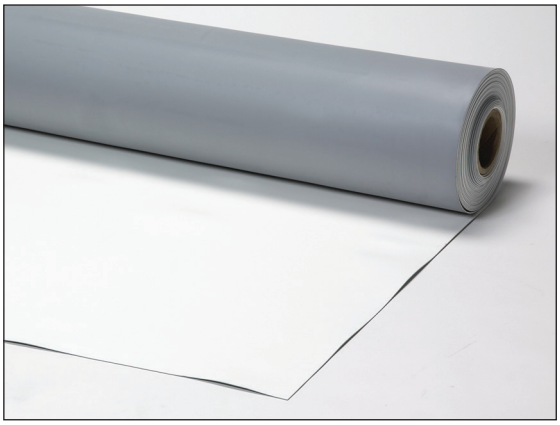
Features and Components

Use: To easily form flashings around corners and penetrations. Specifically designed for use in areas that cannot be properly detailed with PVC field membrane.

Material: 75 mil (1.91 mm) thick, reversible, flexible, non-reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester).

Colors: White/Grey, Grey ES/White, Sandstone/White, Sandstone ES/White, White/Charcoal

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component
A – Accessory

Single Ply

Type
FW – Flashing Wall
FC – Curb/Corner

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

- Do not install JM PVC Detail Membrane in direct contact with asphalt or coal tar pitch
- Refer to JM PVC applicator guides or detail drawings for instructions

Packaging and Dimensions

Roll Size	36" x 50' (91.44 cm x 15.24 m)
Nominal Thickness	0.075" (1.91 mm)
Coverage per Roll	150 ft^2 (13.94 m^2) *(gross)*
Weight per Roll	75 lb (34.0 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, in a cool, dry location prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC DETAIL STRIP

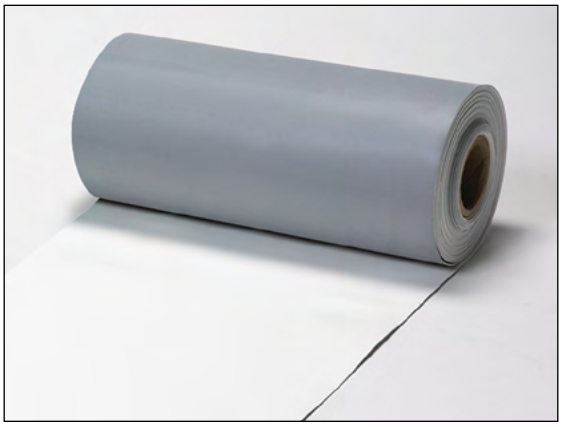
Features and Components

Use: Primarily use to "strip-in" flashing details, gravel stops, PVC-Coated Metal joints, and exposed fasteners in the roof field.

Material: 60 mil (1.52 mm) thick, reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester).

Colors: 6" - Black/White
8" - White/Grey and Sandstone/White

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component
A Accessory
Single Ply

Type
MS Membrane Seaming
FE Flashing Edge

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

- Do not install JM PVC Detail Strip in direct contact with asphalt or coal tar pitch
- Refer to JM PVC applicator guides or detail drawings for instructions

Packaging and Dimensions

Roll Sizes	6" x 150' (15.2 cm x 45.7 m)	8" x 150' (20.3 cm x 45.7 m)
Nominal Thickness	0.060" (1.52 mm)	
Coverage per Roll	75 ft^2 (6.97 m^2)	100 ft^2 (9.29 m^2)
Weight per Roll	30 lb (13.6 kg)	40 lb (18.1 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, in a cool, dry location prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC-COATED METAL

Galvinized and Stainless Steel

Features and Components

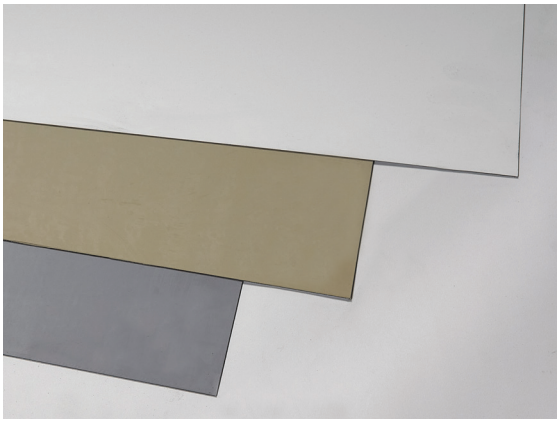
Use: Fabricated by the contractor into metal flashings and edge details. It is used to provide monolithic water-tight protection for both adhered and mechanically fastened roofing assemblies.

Materials: 20 mil (0.51 mm) UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester) membrane laminated to 24 gauge (0.6 mm) galvanized steel or stainless steel.

Colors:** White; Grey; Sandstone; and Black

*Elvaloy® KEE is a registered trademark of Dow.

**Colors may be subject to availability, extended lead times and minimum order quantities.



Component
A
Accessory
Single Ply

Type
FE
Flashing Edge

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Mechanically Fastened

Hot Air Weld (for membrane)

- Do not install in direct contact with asphalt, coal tar pitch, or any petroleum-based product.
- Refer to JM PVC applicator guides or detail drawings for instructions.

Packaging and Dimensions

Sheet Size	4' x 10' (1.22 m x 3.05 m)
Nominal Thickness: Membrane Metal Total	 0.020" (0.51 mm) 0.024" (0.56 mm) 0.044" (1.07 mm)
Sheets per Pallet*	30 & 10
Coverage per Pallet	1,200 ft² (111.5 m²) *(gross)*
Weight per Sheet	42 lb (19 kg)
Weight per Pallet	1,360 lb (617 kg) 650 lb (295 kg)

*Quantities per pallet may be subject to limitations depending on requested color.

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application. Store flat, not on end, protected from warping, bending or contamination.

RS-8314 6-23 (Replaces 8-16)

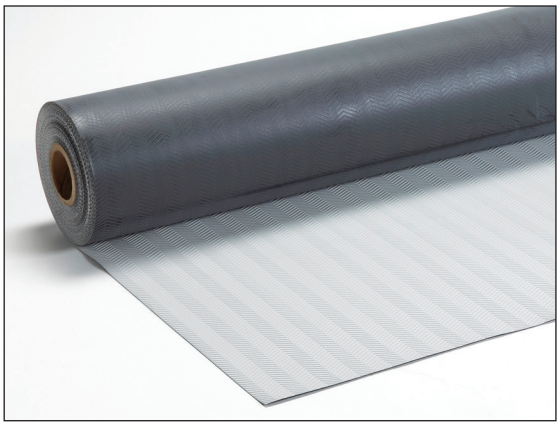
JM PVC WALKPAD

Features and Components

Use: Provides a safe, stable and maintenance-free walkway for quick and easy access to rooftop equipment in high traffic areas.

Material: 72 mil (1.83 mm) thick, textured, reinforced, UV-resistant PVC (polyvinyl chloride) with Dow™ Elvaloy® KEE (Ketone Ethylene Ester).

Color: Grey



Component
A
Accessory
Single Ply

Type
PT
Protection

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP		SBS				
	HA	CA	HW	HA	CA	HW	SA	MF
	Do not use in multi-ply systems							

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
	Compatible with the selected single ply systems above									

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

When installing JM PVC Walkpads be sure to:

- Achieve full weld around perimeter of the material
- Install textured side up
- Minimize installing over seams and membrane splices whenever possible
- On mechanically fastened systems, avoid installing over the disc
- Refer to JM PVC applicator guides or detail drawings for instructions

Packaging and Dimensions

Roll Size *(width x length)*	36" x 60' (91.44 cm x 18.29 m)
Nominal Thickness	0.072" (1.83 mm)
Coverage per Roll *(gross)*	180 ft^2 (16.72 m^2)
Weight per Roll	78 lb (35.4 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application.

JM PVC HEAVY-DUTY WALKPAD

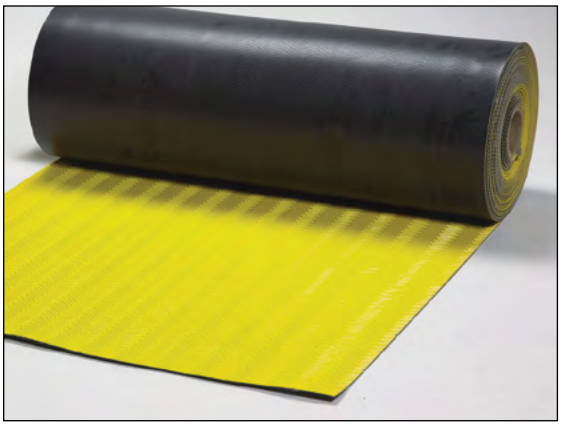
Features and Components

Use: Provide a safe, stable and maintenance-free walkway for quick and easy access to rooftop equipment in high traffic areas.

Materials: 150 mil (3.81 mm) thick, textured, reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester).

Color: Safety Yellow

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component
A
Accessory
Single Ply

Type
PT
Protection

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

When installing JM PVC Walkpads be sure to:

- Achieve full weld around perimeter of the material
- Install textured side up
- Minimize installing over seams and membrane splices whenever possible
- On mechanically fastened systems, avoid installing over the disc
- Refer to JM PVC applicator guides or detail drawings for instructions

Packaging and Dimensions

Roll Size *(width x length)*	36" x 60' (91.44 cm x 18.29 m)
Nominal Thickness	0.150" (3.81 mm)
Coverage per Roll *(gross)*	180 ft^2 (16.72 m^2)
Weight per Roll	132 lb (59.9 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC UNIVERSAL CORNERS

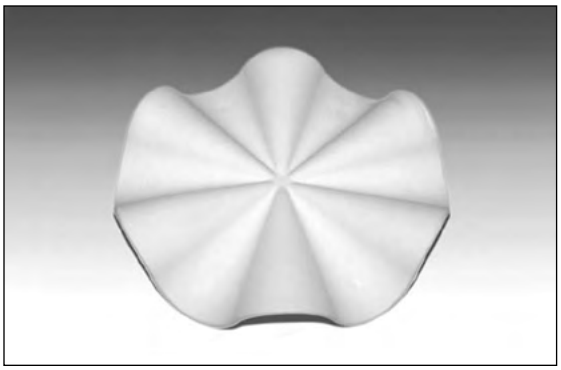
Features and Components

Use: Designed in a waffle pattern for easy installation around any inside and outside corners.

Material: Flexible, non-reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester).

Colors: White; Grey; and Sandstone

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component

A Accessory

Single Ply

Type

FC Curb/Corner

FW Flashing Wall

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

Refer to JM PVC applicator guides or detail drawings for instructions.

Packaging and Dimensions

Size *(diameter) (waffle pattern)*	6" (15.2 cm)
Corners per Box	20
Weight per Corner	1.9 oz (55 g)
Weight per Box	3.1 lb (1.4 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC PIPE BOOTS

Features and Components

Use: A smooth, cone-shaped boot for traditional or split-pipe flashing applications to securely seal the penetration. Pipe boots eliminate the need for field fabrication.

Material: Flexible, non-reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester).

Colors: White; Grey; and Sandstone

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.

Component
A
Accessory
Single Ply

Type
FP
Penetration

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	AD	MF	AD	MF	AD	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **AD** = Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

- Do not install JM PVC Pipe Boot in direct contact with asphalt or coal tar pitch
- Each boot has a cutting guide for easy reference and diameter measurements. JM PVC Pipe Boots accommodate pipe sizes from 1" to 6" (2.5 cm to 15.2 cm) in diameter. Standard size pipe clamps covering the largest possible range (6" diameter)are included for each pipe boot. Dimensions less than 1.5" diameter may require alternative clamps. Standard pipe boots are heat welded to JM PVC Membrane.
- Refer to JM PVC applicator guides or detail drawings for instructions

Packaging and Dimensions

Size*	1" - 6" (2.5 cm - 15.2 cm)
Boots per Box	10 (clamping rings included)
Weight per Boot	1.2 lb (0.54 kg)
Weight per Box	12 lb (5.44 kg)
Thickness	0.060" (1.52 mm)

*Standard size pipe clamps covering the largest possible range (6" diameter) are included for each pipe boot. Dimensions less than 1.5" (3.8 cm) diameter may require alternative clamps.

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application.
Temperature Range	60°F and 80°F (16°C and 27°C)

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC T-JOINT PATCH

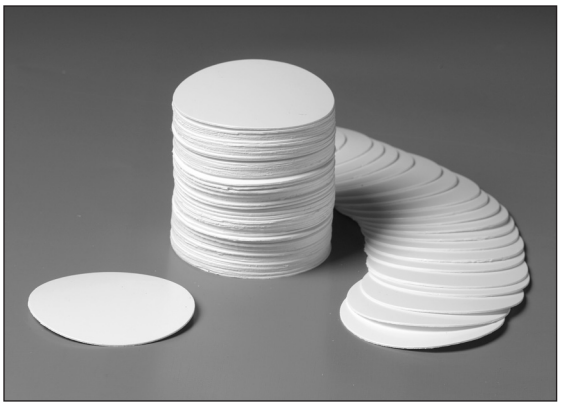
Features and Components

Use: To seal seam laps where perimeter and/or header sheets intersect (T-Joint) in PVC systems.

Material: Flexible, non-reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester).

Colors: White; Grey; and Sandstone

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component
A
Accessory
Single Ply

Type
MS
Membrane Seaming

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	AD	MF	AD	MF	AD	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **AD** = Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

Refer to JM PVC applicator guides or detail drawings for instructions.

Packaging and Dimensions

Size *(diameter)*	4.5" (11.4 cm)
Patches per Box	100
Weight per Box	6.4 lb (2.9 kg)
Thickness	0.060" (1.52 mm)

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

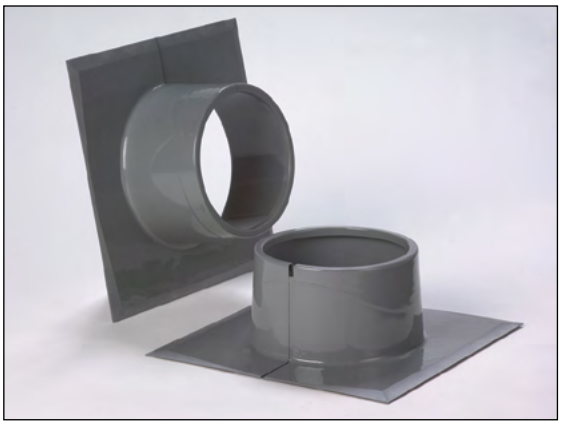
JM PVC PENETRATION PAN

Features and Components

Use: Unit used to seal uneven penetrations through the membrane that are difficult to flash. The penetration pan is slit on one side to allow for positioning around objects to be flashed. A welding tab is included to seal the penetration pan once installed.

Material: 125 mil (3.18 mm) thick, one piece molded unit, vacuum-formed and fabricated from impact-resistant rigid PVC (polyvinyl chloride).

Color: Grey



Component
A Accessory
Single Ply

Type
FP Penetration

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with all Single Ply systems						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

- Do not install in direct contact with asphalt or coal tar pitch
- For use with JM EPDM/PVC Pourable Sealer
- Refer to JM PVC, TPO, or EPDM applicator guides or detail drawings for instructions

Packaging and Dimensions

Size	6" (15.2 cm) diameter
Nominal Thickness	0.125" (3.18 mm)
Pockets per Box	12
Weight per Box	10 lb (4.5 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, keep clean and dry prior to use.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM POLYESTER MAT PROTECTION SLIPSHEET

Features and Components

Use: JM Polyester Mat Protection Slipsheet is intended for use as a separation layer between extruded polystyrene insulation and roofing membrane in protected membrane (inverted) roof assemblies, as well as a separating sheet in some recover systems. It is also used as a protective layer between pavers and JM single ply membrane.

Material: 9.0 oz/yd^2 (305.15 g/m^2) needle-punched, UV-resistant polyester fabric.

Color: White

Component
A
Accessory
Single Ply

Type
PT
Protection

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

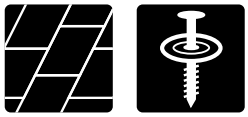
Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with all Single Ply systems						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application



Loose Laid | Mechanically Fastened

- JM Polyester Mat Protection Slipsheet is typically installed between the overlying extruded polystyrene insulation and JM PVC roofing membrane.
- Refer to JM PVC applicator guides or detail drawings for instructions.

Packaging and Dimensions

Roll Size	12' wide x 100' long (3.7 m x 30.48 m)
Coverage per Roll	1,200 ft^2 (111.48 m^2) *(gross)*
Weight per Roll	84 lb (38.1 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, in a cool, dry location prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC PROFILES

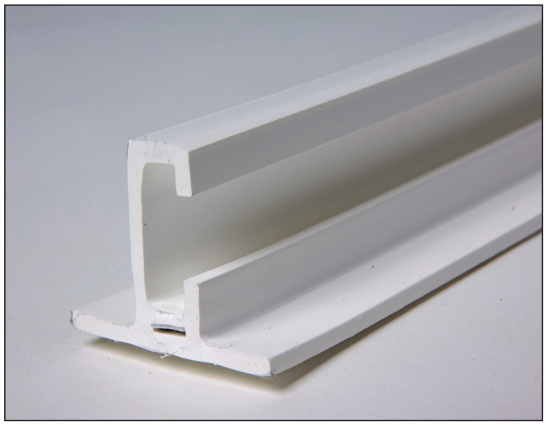
Features and Components

Use: Used as a decorative rib to simulate the aesthetics of a standing seam metal roof. This accessory is for use on fully adhered JM PVC and JM PVC SD Plus roofing systems with 60 mil or greater membranes.

Materials: UV-resistant PVC (polyvinyl chloride) and an Elvaloy®* KEE (ketone ethylene ester). Preformed, non-reinforced, extruded, and heat-weldable.

Colors: White; Sandstone; and Grey

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component
A
Accessory
Single Ply

Type
MS
Membrane Seaming

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

- Do not install in direct contact with asphalt or coal tar pitch.
- Refer to the JM PVC applicator guides or detail drawings for instructions.

Packaging and Dimensions

Profile Size	1½" w x 1¼" h x 10' (38 mm x 32 mm x 3.05 m)
Profile Weight	2.94 lb (1.33 kg) per rib
Spine Size	¼" w x 13⁄16" h x 7' (6.35 mm x 21 mm x 2.13 m) perforated every 6" (15.24 cm)
Items per Box	24 – 10' (3.05 m) Profiles and one (1) piece of 7' (2.13 m) connector perforated every 6" (15.24 cm) Profile Spine (connector) – 14 per box
Coverage per Box	240 lin ft (73.2 lin m)
Weight per Box	80 lb (36.3 kg)

Spine Only Box

Spine Size	¼" w x 13⁄16" h x 6" l (6.35 mm x 21 mm x 2.13 m)
Spine Weight	0.04 lb (0.02 kg)
Items per Box	24 - 6" Spines
Weight per Box	2.5 lb (1.13 kg)

Storage

Storage Conditions	Keep dry and clean prior to installation. Store flat, not on end, protected from warping, bending or contamination.

Refer to the Safe Use Instructions and product label prior to using this product. The Safe Use Instructions are available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC SAFETY STRIP

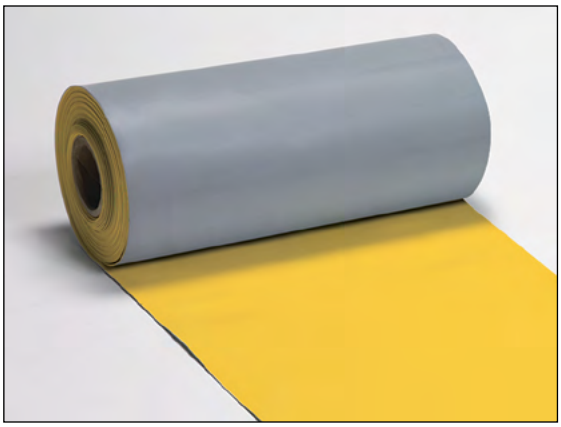
Features and Components

Use: Primarily used as a safety warning line for roof perimeters.

Material: 45 mil thick, reinforced, UV-resistant PVC (polyvinyl chloride) with Elvaloy* KEE (ketone ethylene ester).

Colors: Yellow

* Elvaloy is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.



Component
A Accessory

Single Ply

Type
PT Protection

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Hot Air Weld

- Do not install JM PVC Detail Strip in direct contact with asphalt or coal tar pitch
- Refer to JM PVC applicator guides or detail drawings for instructions

Packaging and Dimensions

Roll Size *(width x length)*	12" x 150' (30.5 cm x 45.72 m)
Nominal Thickness	0.045" (1.83 mm)
Coverage per Roll *(gross)*	150 ft^2 (13.93 m^2)
Weight per Roll	60 lb (39.0 kg)

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

JM PVC Split Pipe Boots

Features and Components

Use: A prefabricated, reinforced 60 mil JM PVC (KEE), round-shaped 1" to 6" (2.54 cm to 15.24 cm) split-pipe boot for flashing application. Pipe boots minimize the need for field fabrication. Custom sizes and colors are available upon request. Contact your JM representative for minimum order quantity and lead time.

Material: JM PVC 60 mil reinforced membrane containing the optimal amount of DuPont™ Elvaloy®* KEE (Ketone Ethylene Ester) that is factory fabricated into a one-piece round split-pipe boot.

Color: White

Component
A
Accessory
Single Ply

Type
FP
Penetration

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP			SBS											
	HA		CA		HW	HA		CA		HW	SA		MF				
	Do not use in multi-ply systems																
Single Ply	TPO					PVC				EPDM							
	MF		AD		SA	IW		MF		AD	IW		MF		AD		BA
	Compatible with the selected single ply systems above																

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

Standard		Reflectivity	Emissivity
CRRC®	Initial	0.86	0.86
	3 Yr. Aged	0.70	0.82
CA Title 24	Pass	0.86	0.86
LEED® (SRI)	Initial	108	
	3 Yr. Aged	84	
Recycled Content	Post-consumer	0%	
	Post-industrial	0% - 10%	

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

* Elvaloy is a registered trademark of E.I. du Pont de Nemours and Company or its affiliates.

Installation/Application

Hot Air Weld

- Do not install JM PVC Round Split Pipe Boots in direct contact with asphalt or coal tar pitch.
- Standard-sized clamps are included for each split pipe boot.
- Refer to JM PVC application guides or detail drawings for instructions.

Packaging and Dimensions

	Nominal Diameter	O.D. of Pipe Range	Base Size
Size/Round Base	1"	0.25" - 1.25"	12.5"
	2"	1" - 2"	12.5"
	3"	2" - 3"	14"
	4"	3" - 4"	14"
	5"	4" - 5"	16"
	6"	5" - 6"	16"
Height	8" (20.32 cm)		
Boots per Box	8		
Weight per Box	1" – 6.3 lb (2.86 kg) 2" – 6.8 lb (3.08 kg) 3" – 7.8 lb (3.54 kg) 4" – 8.3 lb (3.76 kg) 5" – 9.6 lb (4.36 kg) 6" – 10 lb (4.54 kg)		

RS-8963 7-21 (Replaces 9-15)

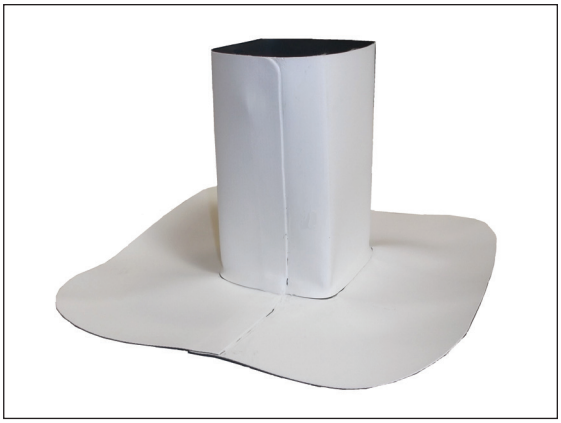
JM PVC Square Pipe Boots

Features and Components

Use: A prefabricated, reinforced 60 mil JM PVC (KEE) square boot in 2" and 4" (5.08 cm and 10.16 cm) sizes for tube-flashing application. Pipe boots minimize the need for field fabrication. Custom sizes and colors are available upon request. Contact your JM representative for minimum order quantity and lead time.

Material: JM PVC 60 mil reinforced membrane containing the optimal amount of DuPont™ Elvaloy®* KEE (Ketone Ethylene Ester) that is factory fabricated into a one-piece square split-pipe boot.

Color: White



Component
A
Accessory
Single Ply

Type
FP
Penetration

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR	APP		SBS				
	HA	CA	HW	HA	CA	HW	SA	MF
	Do not use with multi-ply systems							

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
	Compatible with the selected single ply systems above									

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **IW** = Induction Weld **BA** = Ballasted **AD** = Adhered

Energy and the Environment

Standard		Reflectivity	Emissivity
CRRC®	Initial	0.86	0.86
	3 Yr. Aged	0.70	0.82
CA Title 24	Pass	0.86	0.86
LEED® (SRI)	Initial	108	
	3 Yr. Aged	84	
Recycled Content	Post-consumer	0%	
	Post-industrial	0% - 10%	

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

* Elvaloy is a registered trademark of E.I. du Pont de Nemours and Company or its affiliates.

Installation/Application

Hot Air Weld

- Do not install JM PVC Split Square Pipe Boots in direct contact with asphalt or coal tar pitch.
- Refer to JM PVC application guides or detail drawings for instructions.

Packaging and Dimensions

Size/Round Base	2" (5.08 cm) – 16" (40.64 cm) Base 4" (10.16 cm) – 16" (40.64 cm) Base
Height	8" (20.32 cm)
Boots per Box	8
Weight per Box	2" – 7 lb (3.18 kg) 4" – 8.7 lb (3.95 kg)

RS-8964 7-21 (Replaces 9-15)

TPO OR PVC CUSTOM ACCESSORY QUOTE FORM

Date: _____

Distributor: _____

Roofing Contractor: _____

System: ☐ TPO ☐ PVC

Color: ☐ White ☐ Tan ☐ Gray

Job Name: _____

Job Location: _____

Expected Job Start Date: _____

Please email this form to:

Your Account Manager

Notes: *1. For multiple sizes use additional quote forms.*
2. Custom accessories are non-returnable upon order placement.

Pipe Boots – Cylindrical

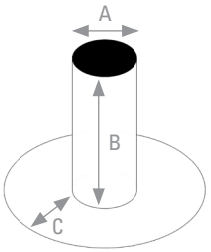
☐ Split ☐ Closed

Qty: _____

Pipe Diameter (A): _____inches

Height (B): _____ inches (8″ std)

Flange (C): _____ inches (6″ std)



Pipe Boots – Conical

☐ Split ☐ Closed

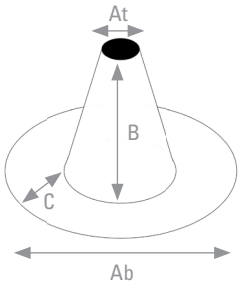
Qty: _____

Top Diameter (At): _____inches

Bottom Diameter (Ab): _____ inches

Height (B): _____ inches (8″ std)

Flange (C): _____ inches (6″ std)



Square/Rectangular Tube Boots

☐ Split ☐ Closed

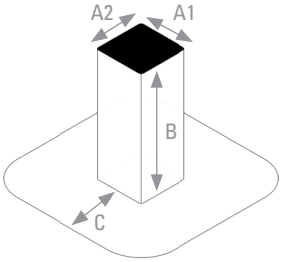
Qty: _____

Tube Size (A1): _____inches

Tube Size (A2): _____inches

Height (B): _____ inches (8″ std)

Flange (C): _____ inches (6″ std)



Curb Flashing

☐ 4 pcs ☐ 2 pcs ☐ Split ☐ Closed

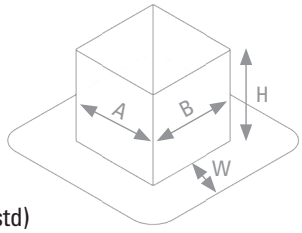
Qty: _____

Dimension (A): _____inches

Dimension (B): _____inches

Height (H): _____ inches (8″ std)

Flange Width (W): _____ inches (6″ std)



T-Top Vent

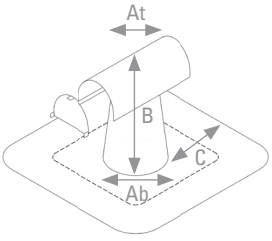
Qty: _____

Top Diameter (At): _____inches

Bottom Diameter (Ab) _____inches

Height (B): _____ inches (8″ std)

Flange (C): _____ inches (6″ std)



Vent with Sub Base

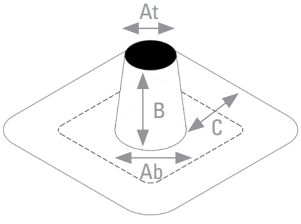
Qty: _____

Top Diameter (At): _____inches

Bottom Diameter (Ab): _____inches

Height (B): _____ inches (8″ std)

Flange (C): _____ inches (6″ std)



Scupper (Lateral Drain)

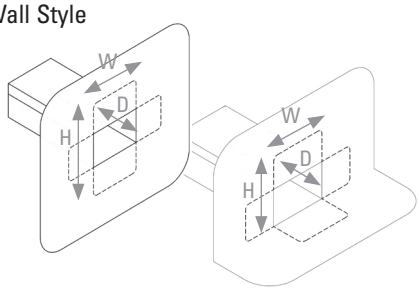
☐ Overflow ☐ Through-Wall Style

Qty: _____

Width (W): _____inches

Height (H): _____ inches

Depth (D): _____ inches



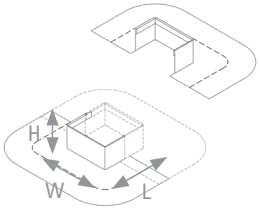
Sealant Pocket

Qty: _____

Width (W): _____inches

Length (L): _____ inches

Height (H): _____ inches (2″ std)



JM PVC-COATED METAL

Aluminum

Features and Components

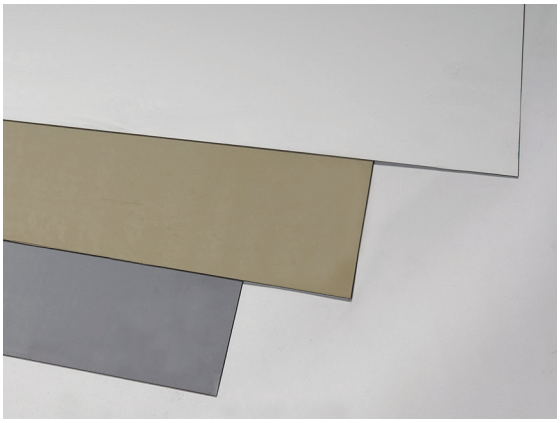
Use: Fabricated by the contractor into metal flashings and edge details. It is used to provide monolithic water-tight protection for both adhered and mechanically fastened roofing assemblies.

Materials: 20 mil (0.51 mm) UV-resistant PVC (polyvinyl chloride) with Elvaloy®* KEE (ketone ethylene ester) membrane laminated to .040 Aluminum.

Colors:** White; Grey; Sandstone; and Black

*Elvaloy® KEE is a registered trademark of Dow.

**Colors may be subject to availability, extended lead times and minimum order quantities.



Component

A Accessory

Single Ply

Type

FE Flashing Edge

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS				
	HA	CA	CA	HW	HA	CA	HW	SA	MF
	Do not use in Multi-Ply systems								

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Peak Advantage® Guarantee Information

Systems
Approved for use in any JM Peak Advantage Guarantee System

Installation/Application

Mechanically Fastened

Hot Air Weld (for membrane)

- Do not install in direct contact with asphalt, coal tar pitch, or any petroleum-based product.
- Refer to JM PVC applicator guides or detail drawings for instructions.

Packaging and Dimensions

Sheet Size	4' x 10' (1.22 m x 3.05 m)
Nominal Thickness: Membrane Metal Total	 0.020" (0.51 mm) 0.040" (1.16 mm) 0.060" (1.67 mm)
Sheets per Pallet*	30 & 10
Coverage per Pallet	1,200 ft² (111.5 m²) *(gross)*
Weight per Sheet	28 lb (13 kg)
Weight per Pallet	1070 lb (485 kg) 510 lb (231 kg)

*Quantities per pallet may be subject to limitations depending on requested color.

Storage

Storage Conditions	Store indoors, out of direct sunlight, and keep clean and dry prior to application. Store flat, not on end, protected from warping, bending or contamination.

Johns Manville
A Berkshire Hathaway Company

Peak Advantage Guarantee

PEAK ADVANTAGE Johns Manville

Building Owner:
Name - SAMPLE
Address - SAMPLE
City, State Zip - SAMPLE

Building Name:
Name - SAMPLE
Address - SAMPLE
City, State Zip - SAMPLE

Approved Roofing Contractor:
Name - SAMPLE
Address - SAMPLE
City, State Zip - SAMPLE

Guarantee Number: *Sample - not issued*
Expiration Date: *Sample - not issued*
Job Name: *Sample - not issued*

Date of Completion: *Sample - not issued*

Terms & Maximum Monetary Obligation to Maintain a Watertight Roofing System.

Years: XX Year **$** No Dollar Limit

Coverage:
The components of the Roofing System covered by this Guarantee are:

Total Squares: XXX

Sec.	Sqs.	Roof Type	Membrane Spec.	Insulation Type Layer 1	Layer 2	Layer 3	Cover Board
1	XXX	XXXX	XXXXX	XXX	XXX	XXX	XXX

Accessories:

Type	Product Name	Quantity	
Expand-O-Flash (1) Style:		0	lin. ft.
Expand-O-Flash (2) Style:		0	lin. ft.
Expand-O-Flash (3) Style:		0	lin. ft.
Fascia Style:		0	lin. ft.
Copings Style:		0	lin. ft.
Gravel Stop Style:		0	lin. ft.
Drains (1) Style:		0	ea.
Drains (2) Style:		0	ea.
Vents Style:		0	ea.
Skylight System:		0	ea.
Enrgy Anchor		0	ea.

These Johns Manville Guaranteed components are referred to above as the "Roofing System" and ALL OTHER NON-JM COMPONENTS OF THE OWNER'S BUILDING ARE EXCLUDED FROM THE TERMS OF THIS GUARANTEE, including any amendments thereto.

Johns Manville* guarantees to the original Building Owner that during the Term commencing with the Date of Completion (as defined above), JM will pay for the materials and labor reasonably required in Johns Manville's sole and absolute discretion to repair the Roofing System to return it to a watertight condition if leaks occur due to: ordinary wear and tear, or deficiencies in any or all of the Johns Manville component materials of the Roofing System, or workmanship deficiencies only to the extent they arise solely out of the application of the Roofing System. Non-leaking blisters are specifically excluded from coverage. Should any investigation or inspection reveal the cause of a reported leak to be outside the scope of coverage under this Guarantee, then all such investigation and inspection costs shall be borne solely by the Building Owner.

WHAT TO DO IF YOUR ROOF LEAKS

If you should have a roof leak please refer to directions on the Maintenance Program page within this document.

LIMITATIONS AND EXCLUSIONS

This Guarantee is not a maintenance agreement or an insurance policy; therefore, routine inspections and maintenance are the Building Owner's sole responsibility (see Maintenance Program page of this document). This Guarantee does not obligate JM to repair or replace the Roofing System, or any part of the Roofing System, for leaks or appearance issues resulting, in whole or in part, from one or more of the following (a) natural disasters including but not limited to the direct or indirect effect of lightning, flood, hail storm, earthquake, tornados, hurricanes or other extraordinary natural occurrences and/or wind speeds in excess of 55 miles per hour; (b) misuse, abuse, neglect or negligence; (c) Failure by the Building Owner to use reasonable care in maintaining the roofing system, said maintenance which is recommended to include those items listed on the Maintenance Program page of this Guarantee; (d) installation or material failures other than those involving the component materials expressly defined above as the Roofing System or exposure of the Roofing System components to damaging substances such as oil, fertilizers, or solvents or to damaging conditions such as vermin; (e) any and all (I) changes, alterations, repairs to the Roofing System, including, but not limited to, structures, penetrations, fixtures or utilities (including vegetative and solar overlays) based upon or through the Roofing System as well as any (II) changes to the Building's usage that are not pre-approved in writing by JM; (f) failure of the Building substrate (mechanical, structural, or otherwise and whether resulting from Building movement, design defects or other causes) or improper drainage; (g) defects in or faulty/improper design, specification construction or engineering of the Building or any area over which the Roofing System is installed; (h) defects in or faulty/improper architectural, engineering or design flaws of the Roofing System or Building, including, but not limited to, design issues arising out of improper climate or building code compliance; or (i) in instances of a recover project, Johns Manville is not responsible for the performance of pre-existing materials that predated the recover. Instead, Johns Manville's sole responsibility in recover systems where JM materials are adhered to existing materials is limited to the installed recover JM Roofing materials up to the wind speed listed herein. Guarantee coverage is limited to replacing recover JM Roofing materials only (and not the pre-existing materials – which is the Owner's responsibility) as required to return the roofing system to a watertight condition due to a claim covered under the terms and conditions herein. Johns Manville is not responsible for leaks, injuries or damages resulting from any water entry from any portion of the Building structure not a part of the Roofing System, including, but not limited to, deterioration of the roofing substrate, walls, mortar joints, HVAC units and all other non-Johns Manville materials and metal components. Moreover, the Building Owner is solely and absolutely responsible for any removal and/or replacement of any overburdens, super-strata or overlays, in any form whatsoever, as reasonably necessary to expose the Roofing System for inspection and/or repair.

This Guarantee becomes effective when (1) it is delivered to Owner; and (2) all bills for installation, materials, and services have been paid in full to the Approved Roofing contractor and to JM. Until that time, this Guarantee is not in force, has no effect – and JM is under no obligation whatsoever to perform any services/work.

The Parties agree that any controversy or claims relating to this Guarantee shall be first submitted to mediation under the Construction Industry Arbitration and Mediation Rules of the American Arbitration Association (Regular Track Procedures) or to such other mediation arrangement as the parties mutually agree. No court or other tribunal shall have jurisdiction until the mediation is completed. In any action or proceeding brought against the Building Owner to enforce this Guarantee or to collect costs due hereunder, Johns Manville shall be entitled to recover its reasonable costs, expenses and fees (including expert witness' fees) incurred in any such action or proceeding, including, without limitation, attorneys' fees and expenses, and the Building Owner shall pay it.

TO THE FULLEST EXTENT PERMITTED BY LAW, JM DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND LIMITS SUCH WARRANTY TO THE DURATION AND TO THE EXTENT OF THE EXPRESS WARRANTY CONTAINED IN THIS GUARANTEE.

THE EXCLUSIVE RESPONSIBILITY AND LIABILITY OF JM UNDER THIS GUARANTEE IS TO MAKE REPAIRS NECESSARY TO MAINTAIN THE ROOFING SYSTEM IN A WATERTIGHT CONDITION IN ACCORDANCE WITH THE OBLIGATIONS OF JM UNDER THIS GUARANTEE. JM AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES TO THE BUILDING STRUCTURE (UPON WHICH THE ROOFING SYSTEM IS AFFIXED) OR ITS CONTENTS AND OR OCCUPANTS, LOSS OF TIME OR PROFITS OR ANY INCONVENIENCE, INJURY. JM SHALL NOT BE LIABLE FOR ANY CLAIM MADE AGAINST THE BUILDING OWNER BY ANY THIRD PARTY AND THE BUILDING OWNER SHALL INDEMNIFY AND DEFEND JM AGAINST ANY CLAIM BROUGHT BY ANY THIRD PARTY AGAINST JM RELATING TO OR ARISING OUT OF THE ROOFING SYSTEM OR JM'S OBLIGATIONS UNDER THIS GUARANTEE. JM AND ITS AFFILIATES SHALL NOT BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS GUARANTEE. THIS GUARANTEE DOES NOT COVER, AND EXPLICITLY EXCLUDES, ANY AND ALL INJURIES, CLAIMS AND/OR DAMAGES RESULTING, IN WHOLE OR IN PART, FROM ANY WATER ENTRY FROM ANY PORTION OF THE BUILDING STRUCTURE INCLUDING, BUT NOT LIMITED TO, THE ROOFING SYSTEM.

No one is authorized to change, alter, or modify the provision of this Guarantee other than the Regional Service Manager, or authorized delegate. JM's delay or failure in enforcing the terms and conditions contained in this Guarantee shall not operate as a waiver of such terms and conditions. This Guarantee is solely for the benefit of the Building Owner identified above and Building Owner's rights hereunder are not assignable. Upon sale or other transfer of the Building, Building Owner may request transfer of this Guarantee to the new owner, and JM will transfer this Guarantee, only after completing JM's transfer requirements including JM receiving satisfactory information and payment of a transfer fee, which must be paid no later than 30 days after the date of Building ownership transfer.

In the event JM pays for repairs which are required due to the acts or omissions of others, JM shall be subrogated to all rights of recovery of the Building Owner to the extent of the amount of the repairs.

Because JM does not practice Engineering or Architecture, neither the issuance of this Guarantee nor any review of the Building's construction or inspection of roof plans (or the Building's roof deck) by JM representatives shall constitute any warranty by JM of such plans, specifications, and construction or in any way constitute an extension of the terms and conditions of this Guarantee. Any roof inspections are solely for the benefit of JM.

JM does not supervise nor is it responsible for a roofing contractor's work except to the extent stated herein, and roofing contractors are not agents of JM.

*JOHNS MANVILLE ("JM") is a Delaware corporation.

SAMPLE ONLY – NOT ISSUED

By: Joseph Smith
Title: President Roofing Systems

Addendum(s)

Maintenance Program

The following Maintenance Program is recommended and should be implemented and followed:

1. Building Owner must notify JM's Owner Services Group (see below) immediately upon discovery of the leak and in no event later than thirty (30) days after initial discovery of the leak, time being of the essence. Failure of the Building Owner to provide timely notice to JM Guarantee Services of any leak is a material ground for termination of the Guarantee.

2. In response to timely notice, JM will arrange to inspect the Roofing System, and
   (i) If, in JM's opinion, the leak(s) is/are the responsibility of JM under this Guarantee (see Limitations and Exclusions), then JM will take prompt appropriate action to return the Roofing system to a watertight condition, or
   (ii) If, in JM's opinion, the leak(s) is/are not the responsibility of JM under this Guarantee, then JM will advise the Building Owner within a reasonable time of the minimum repairs that JM believes are required to return the Roofing System to a watertight condition. If the Building Owner, at his expense, promptly and timely makes such repairs to the Roofing System (time being of the essence) then this Guarantee will remain in effect for the unexpired portion of its Term. Failure to make any of these repairs in a timely and reasonable fashion will void any further obligation of JM under this Guarantee as to the damaged portion of the Roofing System as well as any other areas of the Roofing System impacted by such failure.

3. In the event an emergency condition exists which requires immediate repair to avoid damage to the Building, its contents or occupants, then Building Owner may make reasonable, essential temporary repairs. JM will reimburse Building Owner for those reasonable repair expenses only to the extent such expenses would have been the responsibility of JM under the Guarantee.

There are a number of items not covered by this Guarantee that are the sole, exclusive responsibility of the Building Owner. In order to ensure that your new roof will continue to perform its function and to continue JM's obligations under the Guarantee, you should examine and maintain the items below on a regular basis. All damage or leak investigation findings that are the direct result of non-covered maintenance items are the sole responsibility of the owner.

- Maintain a file for your records on this Roofing System, including, but not limited to, this Guarantee, invoices, and subsequent logs of all inspections performed and repairs that are made to the Roofing System.
- Inspect your Roofing System at least semi-annually. This is best done in the spring, after the Roofing System has been exposed to the harsh winter conditions, and, in the Fall after a long hot summer. It is also a good idea to examine the Roofing System for damage after severe weather conditions such as hailstorms, heavy rains, high winds, etc.
- Since these types of Roofing Systems typically have a low slope, they are easily examined. However, care must be taken to prevent falling and other accidents. JM expressly disclaims and assumes no liability for any inspections performed on the Roofing System.

When checking the Roofing System:

- Remove any debris such as leaves, small branches, dirt, rocks, etc. that have accumulated.
- Clean gutters, down spouts, drains and the surrounding areas. Make certain they allow water to flow off the Roofing System. Positive drainage is essential.
- Examine all metal flashings for rust and damage that may have been caused by wind or traffic on the Roofing System, and make certain they are well attached and sealed. Any damaged materials due to foot traffic or service work, loose clamps at penetrations, or poorly sealed materials at drains or penetrations pockets must be repaired by a JM Approved Roofing Contractor only.
- Examine the areas that abut the Roofing System. Damaged masonry, poorly mounted counter flashing, loose caulking, bad mortar joints, and any loose stone or tile coping can appear to be a membrane leak. Have these items repaired if found to be defective.
- Examine the edges of the Roofing System. Wind damage often occurs in these areas. Materials that have been lifted by the wind need to be corrected by a JM Approved Roofing Contractor.
- Examine any roof top equipment such as air conditioners, evaporative coolers, antennas, etc. Make certain they do not move excessively or cause a roof problem by leaking materials onto the Roofing System.
- Check the building exterior for settlement or movement. Structural movement can cause cracks and other problems which in turn may lead to leaks in your Roofing System.
- Examine protective coatings; any cracked, flaking, or blistered areas must be recoated.

Protecting your investment:

- Avoid unnecessary roof top traffic.
- If you allow equipment servicemen to go onto the Roofing System, advise them to be careful. Dropped tools, heavy equipment, etc. can damage the membrane. It is recommended to keep a log of all such trips to the Roofing System.
- Do not allow service personnel to make penetrations into the Roofing System; these are to be made only by a JM Approved Roofing Contractor.

All the terms and conditions of this Guarantee shall be construed under the internal law of the state of Colorado without regard to its conflicts of law principles. Invalidity or unenforceability of any provisions herein shall not affect the validity or enforceability of any other provision which shall remain in full force and effect to the extent the main intent of the document is preserved.

This form is not to be copied or reproduced in any manner. This Guarantee is valid only in the United States of America.

Owner Services Group
(800) 922-5922
E-mail: OwnerServices@jm.com
www.jm.com/roofing