Johns Manville

Single Ply Roofing Systems (PVC)

JM PVC

☐ 50 ☐ 60 ☐ 80

Description

JM PVC is a flexible, thermoplastic membrane manufactured using an ultraviolet-resistant polyvinyl chloride and an Elvaloy® KEE (ketone ethylene ester) formulation. JM PVC membranes are reinforced with a non-wicking polyester fabric. JM PVC membranes provide excellent weathering characteristics, high tensile strength and long-term flexibility. JM PVC membranes also have excellent resistance to harsh chemicals and industrial pollutants.

Use

JM PVC membranes can be installed in new, reroof (tear-off) and recover roof constructions. In recover construction, if the existing roof is sound, the Johns Manville (JM) roof system can eliminate the cost of disposing of the original roof. JM PVC membranes are installed over approved cushioning layers or insulations, when required.

The membrane is secured to the roof deck utilizing either mechanical fastening methods that have been tested for wind uplift in both static and dynamic pressure vessels, or adhering the membrane to an acceptable substrate. JM PVC membranes are thermoplastic; therefore, when rolled out onto the roof substrate, they can be easily welded into one homogenous sheet using hot air welding procedures. Since the JM PVC membrane utilizes a non-wicking reinforcement, the application of an edge sealant is not required.

Colors

White, Grey and Sandstone

Special colors are available with extended lead times. Minimum order quantities may apply. Contact your local JM sales representative for additional information.

Sizes

Available in 50 mil, 60 mil and 80 mil thicknesses in the following sheet dimensions:

50 mil	78"x100' (2.0 m x 30.5 m) 39"x100' (1.0 m x 30.5 m)
60 mil	78"x100' (2.0 m x 30.5 m) 39"x100' (1.0 m x 30.5 m)
80 mil	78"x 75' (2.0 m x 22.9 m) 39"x 75' (1.0 m x 22.9 m)

Applicable Standards

JM PVC membranes meet or exceed all of the requirements of ASTM D 4434, Type III. In addition, JM PVC mechanically fastened and adhered roof systems are classified by UL (Underwriter's Laboratories, Inc.), ULC (Underwriter's Laboratories of Canada) and FM Global. JM membranes meet the material requirements of the International Building Code.

Limitations

JM PVC membranes are mechanically fastened or adhered to the structural roof deck according to FM Global requirements, published standard fastening patterns or adhesives recommendations. The membranes should not come into direct contact with asphalt, coal tar pitch or any petroleum-based product.

Energy and the Environment

ENERGY STAR®	Pass	Reflectivity:	0.86	
Title 24	Pass	Reflectivity:	0.86	Emissivity: 0.86
LEED		Reflectivity:	0.86	Emissivity: 0.94
		Recycled Content		
		Post Consumer: 0%		Post Industrial: 2.5%
		Producing Location: Pawtucket, RI		

Results shown are for the initial reflectivity and emittance for white membranes; emissivity values for Title 24 are tested per ASTM C 1371; LEED emissivity values are tested per ASTM E 408.

Placement of JM Membrane

JM specifications require acceptable wood nailers to be installed according to FM Global current recommendations in Loss Prevention Data Sheet 1-49 and current JM Detail Drawings. Insulation must neatly fit around all the roof penetrations and projections.

Insulations used must be accepted by JM for use in the system to be installed. Fastening of the insulation must be in strict accordance with JM standard fastening requirements and/or any applicable code requirements, whichever is most restrictive or required by the building owner.

Method of Attachment

See product guide specifications for proper installation methods and additional technical data.

Guarantees

JM provides full system guarantees as outlined below:

20 year	60 mil, 80 mil
15 year	50, 60 and 80 mil
10 year	50, 60 and 80 mil

For detailed guarantee information, see the JM system guarantee chart.

JM PVC-50, 60 and 80 membranes meet or exceed all of the requirements of ASTM D 4434, Type III.

Typical Physical Properties

Property	ASTM Test Method	Values
Breaking Strength	D 751	>200 lbs./in. (35 kN/m)
Elongation at Break	D 751	>20%
Properties After Heat Aging		
Breaking Strength	D 751	>90% of original
Elongation	D 751	>90% of original
Tear Resistance	D 751	>45 lbs./in. (7.9 kN/m)
Low Temperature Bend	D 2136	Pass at -40°F (-40°C)
Accelerated Weathering Test	G 53	
Cracking (@7x magnification)		None
Crazing (@7x magnification)		None
Discoloration (@7x magnification)		Negligible
Linear Dimension Change	D 1204	<0.5%
Change in Weight After Immersion in Water	D 570	<3.0%

Refer to the Material Safety Data Sheet prior to using JM PVC. Material Safety Data Sheet is available by calling 800-654-3103 or online at www.jm.com.