

Technical Information Sheet

Description

Shuangshi Reinforced EPDM is known as an extremely durable, and has superior mechanical performance than normal ones. Shuangshi EPDM membrane is 100% recyclable and eco friendly.

Product Preparation

1. Substrates must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials that may damage the membrane.
2. All roughened surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.
3. All surface voids greater than ¼" (6 mm) wide shall be properly filled with an acceptable fill material.

Product Packaging				
Membrane Thickness	Widths		Length	Weight
0.045" (1.14 mm)	7.5' (2.3 m)			0.29 lb/ft ² (1.4 kg/m ²)
	10' (3.05 m)	30' (9.14 m)	100' (30.5 m)	
	16.7' (5.09 m)	40' (12.19 m)		
	20' (6.10 m)	50' (15.24 m)		
0.060" (1.52 mm)	7.5' (2.3 m)			0.39 lb/ft ² (1.5 kg/m ²)
	10' (3.05 m)	30' (9.14 m)	100' (30.5 m)	
	16.7' (5.09 m)	40' (12.19 m)		
	20' (6.10 m)	50' (15.24 m)		

Storage

Store away from sources of punctures and physical damage.

Assure that structural decking will support the loads incurred by material when stored on rooftop. The deck load limitations should be specified by the project designer.

Store away from ignition sources as membrane will burn when exposed to open flame.

Typical Properties (Meets or exceeds ASTM D 4637, Type I)

Physical Test	ASTM Min. Value	Typ. Value 45 mil	Typ. Value 60 mil																
Thickness (D412)	45 mil: 1.143 mm +0.178 mm/-0.127 mm (0.045" +0.007"/-0.005") 60 mil: 1.52 mm +0.229 mm/-0.152 mm (0.060" +0.009"/-0.006")	1.12 mm (0.044")	1.49mm (0.059")																
Tensile Strength (D412, Die C)	9.0 MPa (1305 psi) Minimum	>9.6 MPa (1392 psi)	> 10.0 MPa (1450psi)																
Dynamic Puncture Resistance @ 5J (D5635)	Pass	Pass	Pass																
Static Puncture Resistance @ 20 kg (D5602)	Pass	Pass	Pass																
Elongation, Ultimate % (D412, Die C)	300% Minimum	445%	480%																
Tensile set (D412, Method A, Die C)	10% Maximum	Pass	Pass																
Tear Resistance (D624, Die C)	26.27 kN/m (150 lbf/in) Minimum	>29.25 kN/m (167 lbf/in)	>30.40kN/m (174 lbf/in)																
Brittleness point (D2137)	-45 °C (-49 °F) Maximum	-45 °C (-49 °F)	-45 °C (-49 °F)																
Ozone resistance, no cracks D1149)	Pass	Pass	Pass																
Tensile Strength after Heat Aging*	8.3 MPa (1205 psi) Minimum	Pass	Pass																
Elongation, Ultimate after Heat Aging*	200% Minimum	300%	Pass																
Tear Resistance after Heat Aging*	21.9 kN/m 125 lbf/in Minimum	>28.6 kN/m (163 lbf/in)	Pass																
Linear Dimensional Change after Heat Aging*	± 1%	-1%	Pass																
Water Absorption by Mass (D471)	+8%/-2%	+1%	Pass																
Visual Inspection after Xenon-Arc Weather Resistance Exposure**	Pass	Pass	Pass																
PRFSE, Minimum % after Xenon-Arc Weather Resistance Exposure**	30% Minimum	75%	Pass																
Elongation, Ultimate, Minimum % after Xenon-Arc Weather Resistance**	200% Minimum	340%	Pass																
<p>* Heat age EPDM membrane for: 166 ± 1.66 hours at 240 ± 4°F (116 ± 2°C), followed by specified physical testing. ** Weather Resistance shall be Practices G151 and G155 Xenon-Arc as follows:</p> <table border="0"> <tr> <td>Filter Type:</td> <td>Daylight</td> </tr> <tr> <td>Irradiance:</td> <td>0.35 to 0.70 W/(m²·nm) @ 340 nm [42 to 84 W/(m²·nm) @ 300 to 400 nm]</td> </tr> <tr> <td>Cycle:</td> <td>690 minutes ± 15 minutes light, 30 minutes light plus water spray</td> </tr> <tr> <td>Un-insulated Black Panel Temp:</td> <td>176° ± 4°F (80° ± 2°C)</td> </tr> <tr> <td>Relative Humidity:</td> <td>50% ± 5%</td> </tr> <tr> <td>Spray Water:</td> <td>De-ionized</td> </tr> <tr> <td>Specimen Rotation:</td> <td>Every 315 KJ/(m²·nm) @ 340 nm [37.8 MJ/(m²·nm) @ 300 to 400 nm]</td> </tr> <tr> <td>Exposure:</td> <td>10,080 KJ/(m²·nm) @ 340 nm [1209.6 MJ/(m²·nm) @ 300 to 400 nm]</td> </tr> </table>				Filter Type:	Daylight	Irradiance:	0.35 to 0.70 W/(m ² ·nm) @ 340 nm [42 to 84 W/(m ² ·nm) @ 300 to 400 nm]	Cycle:	690 minutes ± 15 minutes light, 30 minutes light plus water spray	Un-insulated Black Panel Temp:	176° ± 4°F (80° ± 2°C)	Relative Humidity:	50% ± 5%	Spray Water:	De-ionized	Specimen Rotation:	Every 315 KJ/(m ² ·nm) @ 340 nm [37.8 MJ/(m ² ·nm) @ 300 to 400 nm]	Exposure:	10,080 KJ/(m ² ·nm) @ 340 nm [1209.6 MJ/(m ² ·nm) @ 300 to 400 nm]
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