SHUANGSHI
GEOSYNTHETIC PROFESSIONAL

Technical Information Sheet

Description

Shuangshi Reinforced EPDM is known as an extremely durable,and has superiro mechnical performance than normal homogeneous ones. Shusnghi 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.

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Product Packaging

Membrane Thickness	Widths		Length	Weight
0.045" (1.14 mm)	7.5' (2.3 m) 10' (3.05 m) 16.7' (5.09 m) 20' (6.10 m)	30' (9.14 m) 40' (12.19 m) 50' (15.24 m)	100' (30.5 m)	0.29 lb/ft² (1.4 kg/m²)
0.060 " (1.52 mm)	7.5' (2.3 m) 10' (3.05 m) 16.7' (5.09 m) 20' (6.10 m)	30' (9.14 m) 40' (12.19 m) 50' (15.24 m)	100' (30.5 m)	0.39 lb/ft² (1.5 kg/m²)

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.

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

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 ″)	1.14 mm (0.045")	1.52 mm (0.060 ″)
breaking Strength (ASTM D751)	90 lbf(400N) Minimum	190lbf(844N)	190lbf(844N)
Dynamic Puncture Resistance @ 5J (D5635)	Pass	Pass	Pass
Static Puncture Resistance @ 20 kg (D5602)	Pass	Pass	Pass
Elongation, Ultimate % (D412, Die C)	250% Minimum	390%	400%
Elongation @fabric break(ASTM D751)	15% Minimum	24%	24%
Tear Resistance (ASTM D751)	10 lbf(45N) Minimum	70lbf(311N)	70lbf(311N)
Brittleness point (D2137)	-45 ºC (-49 ºF) Maximum	-45 °C (-49 °F)	-45 °C (-49 °F)
Ozone resistance, no cracks D1149)	Pass	Pass	Pass
Breaking Strength after Heat Aging*	80 lbf(355N) Minimum	Pass	Pass
Elongation, Ultimate after Heat Aging*	200% Minimum	350%	Pass
Tear Resistance after Heat Aging*	10 lbf(45N) Minimum	Pass	Pass
Linear Dimensional Change after Heat Aging*	± 1%	Pass	Pass
Water Absorption by Mass (D471)	+8%/-2%	Pass	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

* 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:

Filter Type:	Daylight
Irradiance:	0.35 to 0.70 W/(m2·nm) @ 340 nm [42 to 84 W/(m2·nm) @ 300 to 400 nm]
Cycle:	690 minutes ± 15 minutes light, 30 minutes light plus water spray
Un-insulated Black Panel Temp:	176º ± 4ºF (80º ± 2ºC)
Relative Humidity:	50% ± 5%
Spray Water:	De-ionized
Specimen Rotation:	Every 315 KJ/(m2·nm) @ 340 nm [37.8 MJ/(m2·nm) @ 300 to 400 nm]
Exposure:	10,080 KJ/(m2·nm) @ 340 nm [1209.6 MJ/(m2·nm) @ 300 to 400 nm]

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