

GenFlex TPO Membrane

45 mil (1.14 mm)

60 mil (1.52 mm)

DESCRIPTION

GenFlex TPO membrane meets or exceeds all of the requirements for ASTM D 6878-03 Thermoplastic Polyolefin membrane. The membrane is reinforced with a 9 x 9, 1000 denier polyester scrim.

PHYSICAL PROPERTIES

PROPERTY	ASTM TEST METHOD	MINIMUM	TYPICAL VALUES
Thickness, min, mil (mm)	D 751	39 (1.0)	45 (1.14) 60 (1.52)
Thickness over scrim, mil (mm) 45 (1.14) 60 (1.52)	D 6878 Annex A1	12 (0.305)	15 (0.38) 21 (0.53)
Breaking strength, min, lbf (N)	D 751	220 (976)	330 (1500)
Elongation at reinforcement break, min, %	D 751	15	30
Tearing strength, min, lbf (N)	D 751	55 (245)	156 (694)
Brittleness point, max, °F (°C)	D 2137 Method B	-40 (-40)	-49 (-45)
Ozone resistance, no cracks	D 1149	Pass	Pass
Properties after heat aging: (retained values)	D 573		
Breaking strength, % min.	D 751	90	90
Elongation at reinforcement break, % min	D 751	90	90
Tearing strength, % min.	D 751	60	60
Weight change (mass), max %	D 751	±1	-0.02
Linear dimensional change, max, %	D 1204	±1	-0.01
Water absorption, max, mass %	D 471	±3	+1.2
Factory seam strength, lbf (N)	D 751	66 (290)	75 (330)
Weather Resistance			
Visual	G 155	Pass	Pass
Breaking Strength, % min.	90	90	90
Elongation at Reinforcement Break, min, %	90	90	90
Water Vapor Permeance – Perm	E 96	n/a	0.0122
Static Puncture Resistance – lb (kg)	D 5602	n/a	33 (15)
Dynamic Puncture Resistance – J	D 5635	20	20
Puncture Resistance – lbf (N)	FTM 101C Method 2031	200 (890)	337 (1500)

INSTALLATION

TPO may be installed as a mechanically attached, a fully adhered, or a ballasted system. Please consult current GenFlex TPO specifications for specific application needs.

PREPARATION OF SUBSTRATES

Substrates must be clean, dry, smooth, and free of sharp edges, tins, loose or foreign materials, oil, grease, or other materials which may damage the membrane.

All rough surfaces which could damage the membrane shall be repaired as specified to offer a smooth substrate.

All surface voids greater than 1/4" (6.35 mm) wide shall be properly filled with an acceptable material.

PRODUCT DATA

AVAILABLE COLORS & SIZES	
White	Grey
4' x 100' (1.22 m x 30.48 m)	4' x 100' (1.22 m x 30.48 m)
6.16' x 100' (1.88 m x 30.48 m)	8' x 100' (2.43 m x 30.48 m)
6.16' x 50' (1.88 m x 15.25 m)	
8' x 100' (2.43 m x 30.48 m)	Tan
10' x 100' (3.05 m x 30.48 m)	4' x 100' (1.22 m x 30.48 m)
10' x 25' (3.05 m x 7.63 m)	8' x 100' (2.43 m x 30.48 m)
12.33' x 100' (3.76 m x 30.48 m)	

LEED	Test Method	White	Grey	Tan
Reflectivity**	ASTM C 1549	0.77	0.47	0.65
Emissivity**	ASTM C 1371	0.87	0.87	0.87
Solar Reflectance Index (SRI)***	ASTM D 1980-01	95	53	78
Recycled Content:				
Post Consumer		0%		
Post Industrial		3% - 5%		
Manufacturing Location		Tuscumbia, AL		



CCMC 13370-R

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Cool Roof Rating Council (CRRC)	White 0011	Grey 0013	Tan 0014
Solar Reflectance Initial*	0.79	0.34	0.60
Solar Reflectance Weathered*	0.68	Pending	0.55
Thermal Emittance Initial*	0.85	0.89	0.81
Thermal Emittance Weathered*	0.83	Pending	0.84
Solar Reflectance Index (SRI)***	98	37	69

* Values were obtained from independent testing by CRRC.

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*** SRI was calculated using the SRI calculator from the USGBC



STORAGE

Store in original, unopened packaging and away from sources of punctures and physical damage.

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

SHELF LIFE

Not applicable

PRECAUTIONARY DATA

To avoid sources of punctures and physical damage, take care when moving, transporting, or handling.

Waste products such as petroleum products, greases, animal fats, and oils (mineral and vegetable) should be isolated from the membrane.

Refer to Material Safety Data Sheet for additional information.



Only applicable in the U.S.A.