TPO

Smooth-Surface Sheets: 45-60-80mil

TPO is a thermoplastic polyolefin sheet produced with a polyester scrim reinforcement. The fabric provides high breaking and tearing strength, as well as excellent puncture resistance. The membrane is environmentally friendly and safe to install with heat weldability.

● CHARACTERISTICS & ADVANTAGES

> Great Value
Excellent performance at a cost-effective price

> Excellent Seam Strength
Heat-welded seams provide greater seam strength to taped and other seams

> Long-term Weathering
Excellent long-term heat and UV resistance

> Strong physical properties
Outstanding puncture resistance and low temperatures

> Energy Saving
Highly reflective and emissive white roof can help reduce energy costs and urban heat island effect

> Environmentally friendly
and stable formulation

● PACKAGING AND DIMENSION

THICKNESS (mils)	45 (1.14mm)	60 (1.52mm)	80 (2.03mm)
ROLL WEIGHT (lb)	123.3 (55.9kg)	162.1 (73.5kg)	214.3 (97.2kg)
ROLL WIDTH (ft)	6.89 (2.1m)		
ROLL LENGTH (ft)	72.5 (22.1m)		
COVERAGE (ft^2)	500 (46.41m^2)		

● APPLICATION

TPO can be installed in mechanically attached or fully adhered systems. For fully adhered systems, Bonding adhesives are approved. Please refer to the specific adhesive data sheet for application guidelines. For mechanically attached systems, please consult your representative for specific fastening patterns. All laps must be heat-welded to ensure a water tight seal.

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● CONSTRUCTION PROCESS

Substrate Cleanup ▸ Lay Vapour Barrier and Adhesion ▸ Insulation Laying and Fixed ▸ Waterproof Layer Laying and Fixed ▸ Detail Treatment ▸ Self-inspection ▸ Completion Acceptance ▸ Project Hand Over

PHYSICAL PROPERTIES

Meets the requirements ASTM D6878

Type	ASTM Test Method	ASTM Min Values	Typical Value		
			45 mil	60 mil	80 mil
Thickness over scrim	ASTM D7635	0.015in(0.381mm)	0.018(0.457)	0.024(0.610)	0.034(0.864)
Weight (lb/ft^2) (kg/m^2)	N/A	N/A	0.233(1.14)	0.311(1.52)	0.416(2.03)
Breaking Strength	ASTM D751	220lbf/in(976N)	MD:235(1048) CD:225(1000)	MD:250(1113) CD:245(1090)	MD:280(1246) CD:270(1201)
Elongation at Break	ASTM D751	15% MD&CD	25%	25%	25%
Tearing-Strength	ASTM D751	55lbf(245N)	MD:65(289) CD:90(400)	MD:70(311) CD:100(445)	MD:80(456) CD:110(489)
Factory Seam Strength	ASTM D751	66lbf(290N)	66 (290)	66 (290)	66 (290)
Brittleness Point	ASTM D2137	-40℃No Cracks	-40℃	-40℃	-40℃
Ozone Resistance	ASTM D1149	No Cracks	PASS	PASS	PASS
Dimensional Stability	ASTM D1204	≤±1%	0.4%	0.4%	0.4%
Water Absorption	ASTM D471	≤±3%	2%	2%	2%
Weather Resistance	ASTM G155	10080kj/m^2·nm @340nm (4000hrs@0,70W)	PASS	PASS	PASS
Properties After Heat Aging(240℉(115℃))	ASTM D573	32 weeks	PASS	PASS	PASS
Breaking Strength	ASTM D 751	90%	>90%	>90%	>90%
Elongation	ASTM D 751	90%	>90%	>90%	>90%
Tearing Strength	ASTM D 751	60%	>60%	>60%	>60%
Weight Change	ASTM D 751	1%	<1%	<1%	<1%

*MD = Machine Direction, CD = Cross Machine Direction

*Values stated are approximate and subject to normal manufacturing variation. These values are not guaranteed and are provided solely as a guide.