

### Product Description

Kingspan TPO – SA Membrane is a thermoplastic polyolefin (TPO) roofing membrane reinforced with a polyester, weft-inserted scrim and factory-coated with a hot-melt, pre-applied pressure-sensitive adhesive for directly adhering the membrane to approved substrates. Kingspan TPO – SA is a 60-mil membrane delivering flexibility, puncture resistance, and long-term weathering performance in low-slope commercial roofing, reroofing, or recovery applications, and meets the requirements of ASTM D 6878.



### Manufactured in the U.S.A.

Kingspan TPO-SA Membrane are manufactured in the U.S.A. with globally sourced materials.



### Features & Benefits

- **Built to Last:** Formulated for durability, weather resistance, and long-term performance.
- **Self-Adhered Technology:** features pre-applied “peel-and-stick” adhesive expediting membrane installation while ensuring uniform adhesion across the roofing surface.
- **Expedited & Simplified Installation** eliminating bonding adhesive and the time required for it to flash off, saving contractors on installation time, labor, and material costs.
- **Cold-Weather Application:** Maintains adhesive performance and bonding strength at temperatures down to 20°F to help extend the roofing season.
- **Low Odor and No VOC-Containing Product:** Suitable for occupied building projects or sensitive environments where solvent-based adhesives may be restricted.
- **Highly Reflective Membrane** reflects UV radiation back into the atmosphere, reducing the building’s heat absorption, which could contribute to lower cooling costs.

- **Installer-Friendly Weldability & Flexibility:** Wide weld temperature window supports any level of installer experience, and flexible formulation provides the installer with more membrane workability during installation.
- **Performance Tested:** FM and UL assemblies along with CRRC ratings. Also compliant with California Title 24.
- Available in white TPO 060 membrane and 10 ft. x 100 ft. roll size.
- **Kingspan Warranty options:** Contact Kingspan Roofing + Waterproofing’s Technical department for warranty terms and coverage.

### System Installation Options

- **Adhered System** – TPO membrane is factory-coated with pressure-sensitive adhesive and applied directly to an approved substrate after removing the release liner.

### Codes & Approvals



## Application

- Install the Kingspan TPO – SA Membrane in accordance with Kingspan TPO specifications and requirements. Reference the Kingspan Application Guide for additional details.

## Safety Precautions

- Use proper equipment and assistance when moving, lifting, handling, or transporting membrane rolls to avoid personal injury as well as damage to the membrane.
- Reference the Kingspan product Safety Data Sheet for additional safety information.

## Storage

- Store the Kingspan TPO – SA Membrane away from objects that could cause physical damage or create punctures as well as ignition sources. The membrane is flammable and will catch fire when exposed to open flame.

## Radiative Properties & Energy Tested Metrics

### CRRC®

The Cool Roof Rating Council (CRRC) focuses on the radiative properties of roofing and exterior wall materials, specifically solar reflectance (how well a surface reflects sunlight) and thermal emittance (how well a surface releases absorbed heat). These properties, along with the Solar Reflectance Index (SRI), are used to evaluate how well a roofing material can help reduce heat gain in buildings.

- Reflectivity
  - Initial: 0.77
  - 3-Year Aged: 0.70
- Emissivity
  - Initial: 0.87
  - 3-Year Aged: 0.86

### California Title 24

California Title 24, also known as the California Energy Code, sets building energy efficiency standards for residential and commercial buildings by the California Energy Commission. Title 24 aims to reduce wasteful energy use, conserve resources, and extend renewable resources.

- Meets CA Title 24 requirements
- Reflectivity: 0.77
- Emissivity: 0.87

### LEED® Information

- Solar Reflectance Index (SRI) is calculated using ASTM E1980
  - Initial SRI: Pass – 95
  - 3-Year Aged SRI: Pass – 85
- Kingspan TPO Recycled Content
  - Post-Consumer: 0%
  - Post-Industrial: 5%

## Evaluated Physical Properties

### Physical Properties (ASTM D 6878)

Properties	ASTM Test Method	Standard for ASTM D 6878 (Minimum)	Kingspan TPO – SA	
			MD	CMD
Breaking Strength	D 751, Grab Method	220 lbf (976N)	411 lbf (1,828 N)	388 lbf (1,726 N)
Elongation of Reinforcement Break	D 751, Grab Method	15%	27%	27%
Tearing Strength	D 751	45 lbf (200 N)	92 lbf (409 N)	178 lbf (792 N)
Factory Seam Strength	D 751	66 lbf (290 N)	112 lbf (498 N)	
Overall Thickness	D 751	± 10% from Nominal	0.060 in. (Nominal)	
Thickness Over Scrim	D 7635	0.015"	0.027"	
Water Absorption (max)	D 471	3.00%	0.11%	
Brittleness Point	D 2137	-40°F (no cracks)	Pass	
<b>Ozone Resistance</b>	D 1149	Pass (no cracks)	Pass	
Properties After Heat Aging @ 240°F	D 573	Pass/Fail	Pass	
Breaking Strength (after heat aging)	D 751	90%	> 90%	> 90%
Elongation (after heat aging)	D 751	90%	> 90%	> 90%
Tearing Strength (after heat aging)	D 751	60%	> 60%	> 60%
Weight Change (max after heat aging)	D 751	± 1.00%	0.19%	
Linear Dimensional Change (max)	D 1204 (after 6 hours @ 158°F)	± 1.00%	< 0.10%	
Accelerated Weathering	G 151 & G 155	10,080 kJ/(m <sup>2</sup> • nm) @340 nm (4,000 hrs. @ 0.70 W)	> 20,160 kJ/(m <sup>2</sup> • nm) (> 8,000 hrs.)	
Cracking (7x magnification)	G 155	No Cracks	Pass	

Values are provided in MD (machine direction) and CMD (cross-machine direction).

## Product Sizes

SKU	Description	Roll Coverage
600000001506	Kingspan TPO – SA Membrane 10' x 100' (60-mil)	1,000 sq. ft.

Kingspan Roofing + Waterproofing, Inc.  
4115 N. Perkins Road | Stillwater, OK 74075

T: +1 (800) 260-0365 E: support.krw@kingspan.com  
www.kingspanroofing.com

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