



FLEX 45 MIL TPO PLUS SA **(SELF ADHERED THERMOPLASTIC POLYOLEFIN MEMBRANE)**

PRODUCT DISCRIPTION

Flex 45 TPO Plus SA mil thermoplastic polyolefin (TPO) is a self-adhered roof membrane with a hot air weldable seam. The membrane is available in 2 colors, white and tan. The membrane is manufactured in 4 roll sizes: 5øx50ø, 10øx50ø, 5øx100ø and 10øx100ø. Flex 45 TPO Plus SA membranes combine Flex's proven TPO technology with a proprietary factory applied adhesive pre-installed on the back of the sheet for a labor saving installation. The membrane is specifically formulated for long-term weather resistance without the use of either polymeric or liquid plasticizers. The pressure-sensitive adhesive is a 100% solids, hot melt adhesive that eliminates VOC and odor concerns typically associated with fully adhered systems. The adhesive is factory applied to provide uniform thickness yielding consistent field performance. An uncoated edge is maintained to allow for hot air welded field seams. The release liner is silicon coated on both sides to provide consistent, easy release from the adhesive even if either side accidentally touches the adhesive again after removal.

FEATURES

- High tack, pressure sensitive adhesive
- Wide window of weldability
- Outstanding puncture resistance
- Chlorine-free with no halogenated flame retardants
- Plasticizer-free, does not contain liquid or polymeric plasticizers
- Excellent low temperature impact resistance
- Excellent chemical resistance to acids, bases and restaurant exhaust emissions
- Exceptional resistance to solar UV, ozone and oxidation
- Low water vapor permeance and water absorption
- Polyester reinforcing fabric which is resistant to degradation by bacteria, mildew and fungi
- Consistent color

INSTALLATION

The Flex 45 TPO Plus SA Roofing Systems is fast to install since minimal labor and few components are required. The Flex self-adhered membrane application begins with the insulation/underlayment being attached per the required attachment specification.

1. The Flex 45 TPO Plus SA Membrane may only be installed when the outdoor temperature is 50° F or rising.
2. The surface to which the membrane is to be applied must be very clean. Prior to membrane placement, the surface of the insulation or underlayment board must be cleaned of dust and other foreign matter using a fine push broom or a blower.

CAUTIONS AND WARNINGS

A static electric charge may develop when removing the poly release liner from the elastomeric pressure sensitive adhesive on the back of the membrane sheet. To avoid the possibility of ignition,

lids must be closed on any flammable solvent-based adhesives and a fire extinguisher should be readily available.

- Care must be exercised when working close to a roof edge.
- Use proper stacking procedures to ensure sufficient stability of the rolls.
- Exercise caution when walking on wet membrane. Membranes may be slippery when wet.
- Store Flex 45 TPO SA rolls in the original undisturbed plastic wrap in a cool, shaded area and cover with light colored, breathable, waterproof tarpaulins.
- Flex 45 TPO SA membrane that has been exposed to the weather for approximately 7 days or longer must be prepared with Weathered Membrane Cleaner prior to hot air welding.

PHYSICAL PROPERTIES

Property	Test Procedure	Specification
Color		white, tan
Roll Size		5øx100ø 10øx100ø 5øx50ø 10øx50ø
Weight		10øx100øroll = 301 lbs. 5øx100øroll = 148 lbs.
Thickness	ASTM D751	0.045ö
Thickness over scrim	ASTM D751	0.015ö
Breaking Strength (lbf)	ASTM D751	290 x 270
Seam Strength (lbf)	ASTM D751	100
Elongation (min%)	ASTM D751	30%
Heat Aging	ASTM D573	>90%
Tear Strength (lbf)	ASTM D751	124 x 140
Puncture Resistance	FTMS 101C 2031	>290 lbs.
Cold Brittleness	ASTM D2137	-40° C Pass
Dimensional Change	ASTM D1204	0.4%
Water Absorption	ASTM D471	0.7%
Ozone Resistance	ASTM D1149	Pass
Weather Resistance	ASTM G155	Pass
Permeance	ASTM E96	0.070 perms
Hydrostatic Resistance	ASTM D751	390 psi
Reflectivity (white)	ASTM C1549	0.76
Emissivity (white)	ASTM C1371	0.90
SRI (solar reflectance index)	ASTM E1980	109

Flex 45 TPO Plus membranes meet or exceed the requirements of ASTM 6878 Standard Specification for Thermoplastic Polyolefin (TPO) Based Sheet Roofing.

WARRANTY

The Flex 45 TPO Plus SA Roofing Membrane may receive the manufacturers standard five (5) year or optional ten (10) year or fifteen (15) year guarantee of watertightness.