

# TPA FB Single Ply Roof System

## *Polyester Fleece Backed Tri Polymer Alloy Thermoplastic Single Ply Roof System*

### DESCRIPTION

TPA FB Roof Membrane is a white thermoplastic single ply roof membrane which is comprised of an elastomeric tri-polymer alloy based on Elvaloy® and blended with CPE and PVC. TPA FB Roof Membrane is reinforced with a high strength polyester fabric and backed with a non-woven polyester fleece. TPA FB Roof Membrane contains a minimum 25% by weight of Preconsumer recycled content, which is blended into the black compound located below the reinforcing fabric. TPA FB Roof Membrane is asbestos free and exceeds the performance requirements of ASTM D 4434/D4434M, Type IV.

### BASIC USES

TPA FB Roof Membrane is an elastomeric membrane that accepts roof movement and thermal shock. It is fully adhered in either hot applied bituminous adhesive or in a cold applied bonding adhesive. TPA FB Roof Membrane is lapped and seamed using hot air heat welding equipment.

TPA FB Roof Membrane can be used in situations where other roof systems are not practical due to weight or slope considerations. TPA FB Roof Membrane provides excellent resistance to fire exposure in a variety of roof system configurations. TPA FB Roof Membrane resists a wide range of harmful pollutants, such as acid-rain, falling jet fuel, and other minor industrial pollutants. It can resist exposure to oil, grease, dirt, and the detergents used to remove these contaminants.

As an Energy Star Roof Products Partner, Tremco Inc. has determined this product meets the Energy Star Roof Products Program guidelines for energy efficiency. Energy Star qualification is valid for Roofing products in the United States but not in Canada. Natural Resources Canada (NRCan) has implemented an Energy Star program which currently does not include roofing products.

A white TPA FB single ply roof system meets the requirements of California's Title 24 Energy Efficiency Standards for Residential and Non-Residential Buildings and has been tested per the standards of the Cool Roof Rating Council.

### PACKAGING

TPA FB Roof Membrane is available in individual rolls or by the pallet, with 10 rolls/pallet.

### COLOR

White. Custom colors such as gray and tan are available, but minimum order quantities are required.

### DIMENSIONS/ COVERAGE RATES

THICKNESS	ROLL SIZE	COVERAGE <i>(As Applied)</i>	WEIGHT
45 mil (1.14 mm)	76" x 90' (1930 mm x 27.4 m)	546.5 sq. ft. (50.7 sq.m)	180 lbs. (81.6 kg.)
60 mil (1.52 mm)	76" x 90' (1930 mm x 27.4 m)	546.5 sq. ft. (50.7 sq.m)	258 lbs. (117 kg.)
80 mil (2.03 mm)	76" x 60' (1930 mm x 18.2 m)	363.9 sq. ft. (33.8 sq.m)	255 lbs. (102 kg.)

### REFERENCES

#### Factory Mutual Loss Prevention Data Sheets:

- 1-28 Design Wind Loads
- 1-29 Above Deck Roof Components
- 1-49 Perimeter Flashing

### APPLICATION

Roof replacement usually involves more complexities than new construction roofing. Contingencies such as rusted or deteriorated decks, rotted wood components, rooftop

## APPLICATION CONTINUED

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equipment which cannot be moved or shut down, and numerous other conditions are often encountered.

The following application information is designed to serve as a general guide. Your local Tremco Representative will prepare detailed specifications based on the condition of your roof.

**Structural Deck:** Deck must be properly designed and structurally sound.

**Drainage:** Ponding conditions will adversely affect performance of any roofing system. Where positive drainage does not exist, water removal from roof surface should be facilitated by lowering drains, and/or installing additional drains, tapered insulation, or an approved lightweight insulating concrete slope system.

**Insulation:** Insulation must be dry and kept dry. No more insulation shall be installed than can be covered in that day. Use of FAS-n-FREE® Adhesive for solvent free, fastener free insulation attachment is the preferred method of securement unless otherwise specified.

**General Installation Procedures:** According to job specifications, prepare the surface to be covered:

- Remove loose aggregate.
- Replace areas of wet insulation, deteriorated deck and wood components.
- Provide air seal at perimeter, curbs, and penetration flashings.
- Attach new roof insulation according to job specifications.
- Clean insulation surface of loose dust/debris.

**Membrane Placement:** Plan the placement of TPA FB Roof Membrane to facilitate the fabrication of the least number of seams. Ensure that water flows over or along, but not against, the exposed edges.

### Installation of Adhered System:

- Start at the low point of the roof and position the roll square with the roof edge.
- Apply adhesive in a uniform continuous application onto the approved substrate.
- Allow adhesive to become tacky, but do not allow adhesive to fully dry prior to placing membrane into the adhesive.
- Place membrane into adhesive. Broom immediately.
- **Overlap at side lap:** 3" (76 mm) minimum.  
**Overlap at end lap:** 2" (51 mm)
- Do not apply adhesive over membrane in end lap area. Seal end lap using a 6" (152 mm) strip of TPA Roof membrane (without fleece). Heat weld membrane strip over end lap. Stagger all end laps.

### Hot Applied Adhesive Coverage Rate:

- 25 lbs/SQ (1.25 kg/m<sup>2</sup>)
- Premium III and THERMastic 80 are recommended as hot applied adhesives

### Cold Applied Adhesive Coverage Rate:

- Refer to Single Ply Adhesive matrix for coverage rates.
- Refer to adhesive data page for usage

### Membrane Seaming:

- All surfaces must be clean and dry.
- For heat welding, allow the hot air welder to warm up. Insert the nozzle tip of the hot air welded into seam area. Move nozzle at a steady speed along the seam area, immediately applying pressure behind the air nozzle with a Neoprene roller or weighted wheel to ensure positive contact of the heated TPA FB Roof Membrane lap. Minimum width of welded lap shall be 1.5" (38.1 mm) when using an automatic welder. Hand welds shall be a minimum 2" (51 mm) wide.
- Field test heat welded laps to assure proper construction. Perform field test after lap area cools to ambient temperatures. Properly constructed laps will not separate at the lap interface when tested. Consult your Tremco representative for additional information.  
**Perimeter/Projection Attachment:** Provide mechanical attachment of roofing membrane at roof perimeter, walls, expansion joints, and all other projections. Follow the recommendations of Factory Mutual Loss Prevention Data Sheets 1-28, 1-29, and 1-49.



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## LIMITATIONS

## PHYSICAL PROPERTIES

- Positive drainage is required.

PROPERTY	TYPICAL VALUE	TEST METHOD
Thickness	0.045 in (1.14 mm), 0.060 in (1.52 mm), 0.080 in (2.03 mm)	ASTM D 751
Tensile strength	350 lbf (1550N)	ASTM D 751
Elongation @ fabric break	35% MD, 33% XMD	ASTM D 751
Tear strength	100 lbf (440N)	ASTM D 751
Dimensional stability @ 176°F	0.3% @ 6 hrs.	ASTM D 1204
Low temperature flexibility	-40°F (-40°C)	ASTM D 2136 (1998)
Reflectivity	0.86 (initial)	ASTM C 1549
Thermal emittance	0.86 (initial)	ASTM C 1371
SRI (Solar Reflective Index)	108 (initial) 84 (3-year)	ASTM E
Recycled Content	25% Preconsumer	

## CODES & APPROVALS

### Current Approvals:



	Initial Weathered	
Solar Reflectance	0.86	0.70
Thermal Emittance	0.86	0.82
Rated Product ID Number	0612-0007	
Licensed Seller ID Number	0612	
Classification	Production Line	

COOL ROOF RATING COUNCIL®

Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.

Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.

## MAINTENANCE

Your local Tremco Roofing Sales Representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

## PRECAUTIONS

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

## TECHNICAL SUPPORT

Your local Tremco Roofing Sales Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



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