



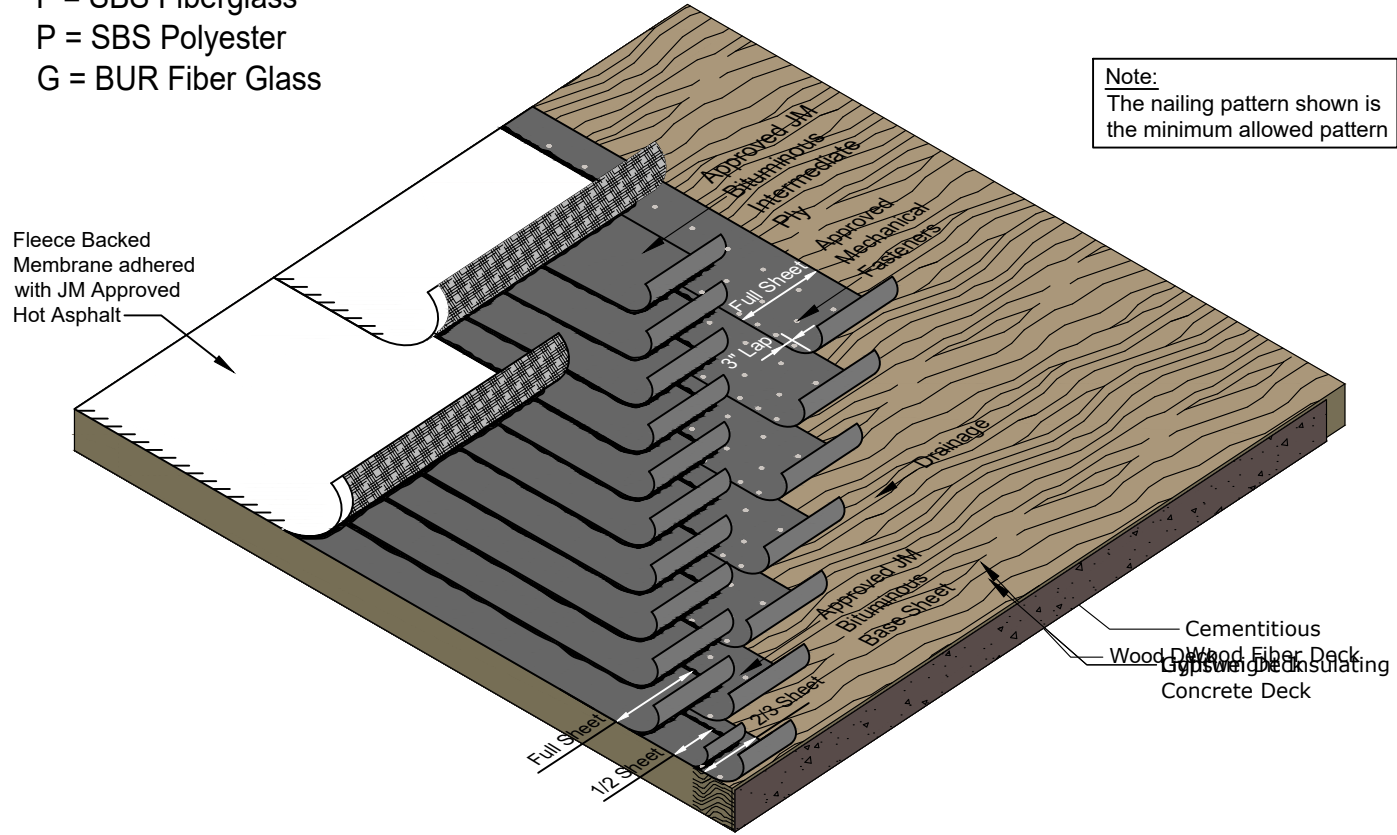
# 4 PLY TPO HYBRID INCLUDING NAILED BASE SHEET

## Assembly Identification

Substrate ————— Cap Sheet  
 N = Nailable ————— T = TPO  
 Number of Plies → **4 ENT-T8** ← Cap Sheet Thickness

Type of Base Sheet ————— Membrane Type  
 C = SBS Composite ————— T = Thermoplastic  
 F = SBS Fiberglass  
 P = SBS Polyester  
 G = BUR Fiber Glass

Note:  
 The nailing pattern shown is the minimum allowed pattern



For JM Guarantee Requirements Contact JM Technical Services at (800) 922-5922 Option 3 or Refer to the JM Peak Advantage Charges and Requirements-Multi Ply document

**Cap Sheet**  
 TPO FB 150™ - (Hot Asphalt)  
 TPO FB 175™ - (Hot Asphalt)

**Intermediate Ply**  
 (Poly Glass Reinforced):  
 DynaBase™ PR  
 DynaBase™ MB16  
 DynaBase™ S80  
 GlasPly VI  
 PermaPly® 28

**Base Sheet (BBS Ply Grades):**  
 DynaBase™ PR  
 DynaBase™ V180 S  
 DynaBase™ V280 S  
 DynaBase™ V50 S

**Deck Type:**  
 Nailable Decks include:  
 Cementitious Wood Fiber  
 Gypsum  
 Lightweight Insulating Concrete  
 Wood (Plywood, Plank, OSB)



# 4 PLY TPO HYBRID INCLUDING NAILED BASE SHEET

## General

This specification is for use over any approved structural deck (without insulation) which can receive and adequately retain nails or other mechanical fasteners that may be recommended by the deck manufacturer and which provides a suitable surface to receive the roof. This specification can also be used in certain re-roofing applications.

### Note:

Consider all general instructions contained in the current JM Thermoplastic Membrane with Redundant Bituminous Ply Systems Installation Guide and the JM SBS Application Guide as part of this specification.

## Design

Consider local conditions and characteristics when designing, specifying and installing any roofing system. Information from the Single Ply Roofing Industry (SPRI), Asphalt Roofing® Manufacturers Association (ARMA), FM Global® and local building codes can provide guidelines for the designer.

Design and installation of the deck and/or roof substrate must result in the roof draining freely to outlets numerous enough and so located as to remove water substantially within 48 hours of a rain event.

## Membrane Substrate

The surface on which the built up, SBS modified bitumen or thermoplastic fleece backed membrane is to be applied to should be an approved structural substrate. The surface must be clean, smooth, flat and dry. Built Up roofing and SBS modified bitumen should not be applied directly to foam plastic insulations.

## Flashings and Components

Refer to the JM TPO Hybrid Details and the JM Thermoplastic Membrane with Redundant Bituminous Ply Systems Installation Guide on the JM website.

## Deck Preparation

Before roofing work is started, the deck should be carefully inspected by the roofing contractor, the deck contractor, and the owners representative to determine that it will be able to receive the roofing system by some method which will hold the system securely, either by adhesion, ballast, or mechanical fasteners. Refer to the JM Roof Decks document and the JM Thermoplastic Membrane with Redundant Bituminous Ply Systems Installation Guide for further information.

## SBS Base Sheet Application

Using one of the base sheets listed, start with a  $\frac{2}{3}$  width sheet. The remaining sheets are to be applied full width with 3" (76 mm) side and 4" (102 mm) end laps over preceding sheets. Nail per specifications. Use nails or fasteners appropriate for the deck type, with 1" (25 mm) minimum diameter caps. Refer to the JM SBS Application Guide for additional information.

## BUR Base Sheet Application

Using one of the base sheets listed, start with a  $\frac{1}{2}$  width sheet. The remaining sheets are to be applied full width with 2" (51 mm) side laps and 4" (102 mm) end laps. Nail as described above.

## Asphalt Application

JM BUR, SBS modified bitumen and thermoplastic fleece back products are designed to be installed with hot asphalt. Permamop® coal tar pitch and coal tar asphalt are not permitted.

JM requires the use of approved asphalt within systems which require a JM Peak Advantage Guarantee.

Asphalt should meet the requirements of ASTM D 312. JM guarantees require the use of approved asphalt. The slope of the roof as well as the climate governs the grade of asphalt to be used.

JM endorses the guidelines established by the NRCA and ARMA for heating asphalt for proper applications. Asphalt should be applied at the Equiviscous Temperature (EVT) +/- 25°F (+/- 4°C).

## Modified Bitumen Sheet Application - Hot Asphalt

On roof decks with slopes up to 1/2" per foot (41 mm/m), the roof felts may be installed either perpendicular or parallel to the roof incline. Install each felt so that it is firmly and uniformly set, without voids into the hot asphalt just before the felt at the proper nominal recommended rates. All sheet edges should be well sealed.

## BUR and SBS Intermediate Sheet Application

Roll a half width piece of one of the intermediate sheets listed over the nailed base sheet into a full mopping of hot asphalt, then over that a full width sheet. The remaining sheets are to be applied full width, in the same manner, overlapping the preceding sheets by 19" (483 mm) so at least two plies of felt cover the base sheet at all locations.

### Note:

Sheets with polyester reinforcement must be allowed to relax in an unrolled position prior to installation. Allow the membrane to relax for at least 15 minutes when the temperature is above 60°F (16°C), or 30 minutes when the temperature is below 60°F (16°C) prior to installation.

## Thermoplastic Membrane with Redundant Bituminous Systems Over Nailable Decks

These specifications are for use over any type of structural deck (with or without insulation) which can adequately retain nails or other approved mechanical fasteners. The thermoplastic fleece backed membrane must be firmly and uniformly placed into a full mopping of hot asphalt without voids. Asphalt must not be applied to the selvage edge of the thermoplastic fleece backed membrane to allow a minimum of 1.5" (38 mm) weld. Before installation, unroll the JM TPO Fleece Backed membrane and allow it to relax. The laps of JM TPO Fleece Backed membrane must be hot air welded. Clean all surfaces to be welded. All laps must be a minimum of 1  $\frac{1}{2}$ " (38 mm) in width.

JM TPO Fleece Backed membrane for hot asphalt application has a 8 oz. polyester fleece for staining protection against the asphalt. The membrane if furnished in 60 and 80 mil thickness and delivered in 10' widths.

## Steep Slope Requirements

Special procedures are required on inclines over 1/2" per foot (41 mm/m). Refer to the SBS Application Guide for further information.

## Re-Roofing

A large percentage of all commercial and industrial roofing pertains to re-roofing of existing buildings. Refer to the JM Re-Roofing document for inspection, testing, components and other valuable information pertaining to re-roofing projects.

## JM Guarantee Requirements

JM Peak Advantage® Guarantees are available up to a 25 year term with approved components and assembly make-up. Refer to the JM Peak Advantage Charges and Requirements- Bituminous Systems document for additional guarantee information.

Refer to the JM Peak Advantage Guarantee Information document for additional guarantee information and guidelines.

Refer to the JM Peak Advantage Guarantee Specimen document to see a JM Peak Advantage Guarantee sample.

All guaranteed installations must follow the guidelines for the requested guarantee as outlined in the SBS Modified Bitumen Specifications document. Not all JM specifications are eligible for all JM Peak Advantage Guarantee terms or enhanced coverage. Please contact JM Guarantee Services at (800) 922-5922 Option 3 for specific requirements.

All projects requiring a guarantee from JM must be applied for a minimum 14 days in advance of job start.

Refer to the Preventative Maintenance Brochure for roof and building maintenance guidelines.