

## APP Modified Bitumen Specifications Specification 3CLS-W/3PLS-W

**Three Ply Heat Welded Modified Bitumen Smooth Surfaced Roofing System. For use over approved lightweight insulating fill decks on inclines up to 3" per foot (250 mm/m).**

**Materials per 100 sq. ft. (9.3 m<sup>2</sup>) of Roof Area**

**Base Ply:**

TRICOR S\*, BICOR S\*, APPeX 4S, JM APP Base, PermaPly 28 or Ventsulation 1 layer

**Intermediate Plies:**

TRICOR S\*, BICOR S\*, APPeX 4S or JM APP Base 1 layer

**Cap: ♦**

3CLS-W—TRICOR S\* or BICOR S\* 1 layer  
3PLS-W—APPeX 4S 1 layer

**Surfacing:**

TopGard Type A	1¾ - 2 gallons (0.7 - 0.8 l/m <sup>2</sup> )
TopGard Type B	2 - 3 gallons (0.8 - 1.2 l/m <sup>2</sup> )
TopGard 4000	1 - 1½ gal (0.4 - 0.6 l/m <sup>2</sup> ) (over smooth sheets)
TopGard 4000	1½ - 2 gal (0.6 - 0.8 l/m <sup>2</sup> ) (over mineral sheets)
TopGard 5000	1 - 1½ gal (0.4 - 0.6 l/m <sup>2</sup> ) (over smooth sheets)
TopGard 5000	1½ - 2 gal (0.6 - 0.8 l/m <sup>2</sup> ) (over mineral sheets)
TopGard Base Coat	1 - 1½ gal (0.4 - 0.6 l/m <sup>2</sup> ) (over smooth sheets)
TopGard Base Coat	1½ - 2 gal (0.6-0.8l/m <sup>2</sup> ) (over mineral sheets)
Fibrated Aluminum Roof Coating*	2 gallons (0.8 l/m <sup>2</sup> )

Approximate installed weight: 185 - 270 lbs. (84 - 122 kgs.)

**General**

This specification is for use over any type of approved lightweight insulating fill deck (without insulation) which can receive and adequately retain mechanical fasteners that may be recommended by the deck manufacturer. Examples of these decks are lightweight insulating concrete, either cellular-type or aggregate-type. Ventsulation venting base felt is recommended over any wet fill deck, and may be required as a condition of guarantee. JM also recommends the use of FP-10 One-Way Roof Vents over some types of wet fill decks.

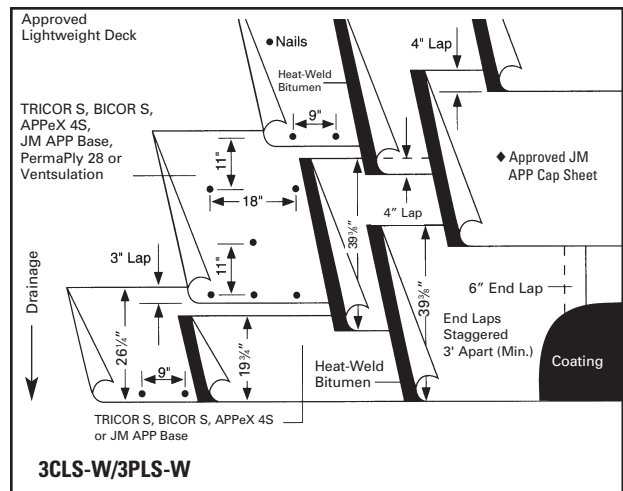
**Design and installation of the deck and/or roof substrate must result in the roof draining freely, to outlets numerous enough and so located as to remove water promptly and completely. Areas where water ponds for more than 24 hours are unacceptable and will not be eligible for a JM Roofing System Guarantee.**

**Flashings**

Flashing details can be found in the "Bituminous Flashings" section of the JM Commercial/Industrial Roofing Systems Manual.

**Application**

Using one of the base plies listed, start with a piece 26¼" (667 mm) wide. The remaining plies are to be applied full width with 3" (76 mm) side and 4" (102 mm) end laps over the preceding sheets. Using an approved lightweight insulating fill fastener, nail the laps at 9" (229 mm) centers, and down the longitudinal center of each felt ply, place two rows of nails, with the rows spaced approximately 11" (279 mm) apart, and nails staggered on approximately 18" (457 mm) centers. Use nails or fasteners appropriate to the type of deck, with 1" (25 mm) minimum diameter caps. For additional fastener information, refer to the fastener data in the "Roof Decks" section of the current JM Commercial/Industrial Roofing Systems Manual.



Over the fastened base ply, heat weld a half width 19¾" (502 mm) piece of one of the intermediate plies listed with 4" (102 mm) side and 6" (152 mm) end laps. The remaining plies are to be full width, in the same manner, with 4" (102 mm) side and 6" (152 mm) end laps over the preceding sheet.

Heat weld a full width piece of one of the cap sheets listed so that it is firmly and uniformly set. Subsequent sheets are to be applied in the same manner, with 4" (102 mm) side and 6" (152 mm) end laps over the preceding sheets. All laps must be rolled with a 3" (76 mm) rounded edge roller. A ⅛" to ⅜" (3 mm to 10 mm) bleedout of APP compound shall be visible at the edge of all seams. All laps must be checked for good adhesion.

**Application of JM APP Modified Bitumen Products may require the use of an open flame propane torch. Improper use of these materials and application equipment can result in severe burns, and/or other physical injury, as well as damage to property. In order to prevent these situations the mechanic must install the materials using the techniques recommended by JM and those found in "A Guide to Safety: Torch-On Modified Bitumens" available from the Asphalt Roofing Manufacturers Association. These techniques have been endorsed by the National Roofing Contractors Association and the United Union of Roofers, Waterproofers and Allied Workers.**

For cold weather application techniques, refer to Paragraph 8A.14.

**Steep Slope Requirements**

Special procedures are required on inclines over 2½" per foot (208 mm/m). Refer to Paragraph 8A.12.

**Surfacing**

Smooth surfaced membranes must be coated with a JM approved coating. The coating chosen will depend on aesthetics and any fire rating or code approval required.

**Note:** When using metric and English sized sheets in the same system, care must be taken to avoid lap over lap configurations.

\*This is a special order product. Contact your JM Sales Representative about availability and lead time.

Refer to the Material Safety Data Sheet and Product Label prior to using this product.