

SBS Modified Bitumen Specifications Specification 4CLD/4FLD/4PLD

Four Ply Hot Mopped Modified Bitumen Mineral 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 m²) of Roof Area

Sheathing Paper:

Wood board decks only 1 layer

Felts:

Base: Ventsulation, GlasBase Plus, DynaBase or PermaPly 28 1 layer

Intermediate: GlasPly Premier or GlasPly IV 2 layers

Cap: ♦

4CLD—DynaKap or DynaKap FR
4FLD—DynaGlas, DynaGlas FR or DynaGlas 30 FR
4PLD—DynaLastic 180, DynaLastic 180 FR, DynaLastic 250 or DynaLastic 250 FR 1 layer

Asphalt (Refer to Para. 7A.8): Trumbull®* or other JM Approved Asphalt

Incline per foot	Asphalt	Total Weight
Up to ½" (41.6 mm/m)	190°F (88°C), Type III, Steep	69 lbs. (31 kgs.)
½" to 3" (41.6 to 250 mm/m)	220°F (104°C), Type IV, Special Steep	69 lbs. (31 kgs.)

Approximate installed weight: 195 - 410 lbs. (88 - 186 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.

Note: All general instructions contained in the current JM Commercial/Industrial Roofing Systems Manual shall be considered part of this specification.

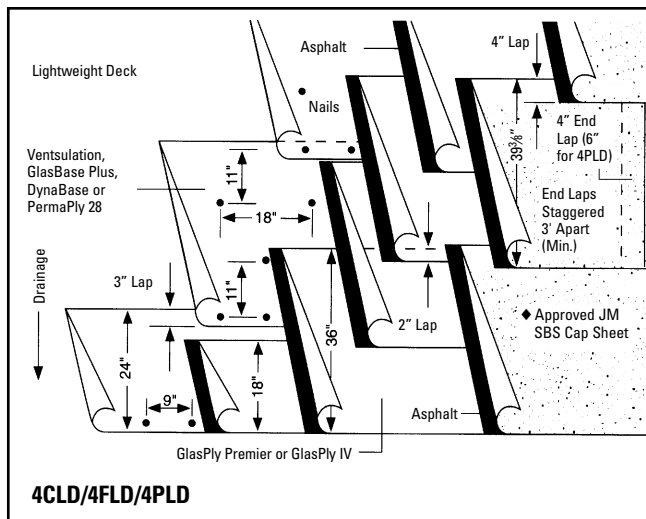
Flashings

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

Application

On roof decks with slopes up to ½" per foot (41.6 mm/m), the roofing felts and modified bitumen sheets may be installed either perpendicular or parallel to the roof incline.

Using one of the base felts listed, start with a piece 24" (610 mm) wide. The remaining felts are to be applied full width with 3" (76 mm) side and 4" (102 mm) end laps over the preceding sheets. Nail the laps at 9" (229 mm) centers, and down the longitudinal center of each felt 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. Consult the current Factory Mutual Approval Guide for the appropriate base sheet, fastener type and pattern. For additional fastener information, refer to the fastener data in the "Roof Decks" section of the current JM Commercial/Industrial Roofing Systems Manual.



Roll an 18" (457 mm) wide piece of one of the intermediate felts listed into a full mopping of asphalt. Over that, apply a full width piece. The remaining felts are to be applied full width, overlapping the preceding felts by 19" (483 mm), so that at least 2 plies of felt cover the base felt at all locations.

Apply a full width piece of one of the cap sheets listed into a full mopping of asphalt. Subsequent sheets are to be applied in the same manner, with 4" (102 mm) side and end laps over the preceding sheets (6" [152 mm] end laps for DynaLastic products).

Apply all felts so that they are firmly and uniformly set, without voids, into the hot asphalt. Asphalt temperature should be at the Equiviscous Temperature (EVT), ±25°F (±14°C), at the point of application. All felt edges shall be well sealed. The asphalt shall be applied just before the felt, at a nominal rate of 23 lbs. per square (1.1 kgs./m²). For modified bitumen sheets, the asphalt temperature shall be at a minimum of 400°F (204°C) when the sheet is set into it. This higher temperature maximizes the bonding of the modified bitumen sheet.

For cold weather application techniques, refer to **Paragraph 7A.24**.

Steep Slope Requirements

Cap sheets with polyester reinforcement must be allowed to relax in an unrolled position prior to installation.

Special procedures are required on inclines over ½" per foot (41.6 mm/m). Refer to **Paragraph 7A.21**.

Surfacing

No additional surfacing is required.

Asphalt

Asphalt should meet the requirements of ASTM D 312.

JM Guarantees require the use of Trumbull®*asphalt or another JM Approved Asphalt.

* Trumbull is a registered trademark of Owens Corning.