Johns Manville

SBS Heat-Weld Specifications
Specification 2FID-HW (Alt)

Two Ply Heat Welded Modified Bitumen Mineral Surfaced Roofing System. For use over Johns Manville (JM) insulation, approved decks, or other approved insulations on inclines up to 3" per foot (250 mm/m).

Materials per 100 sq. ft. (9.3 m²) of Roof Area

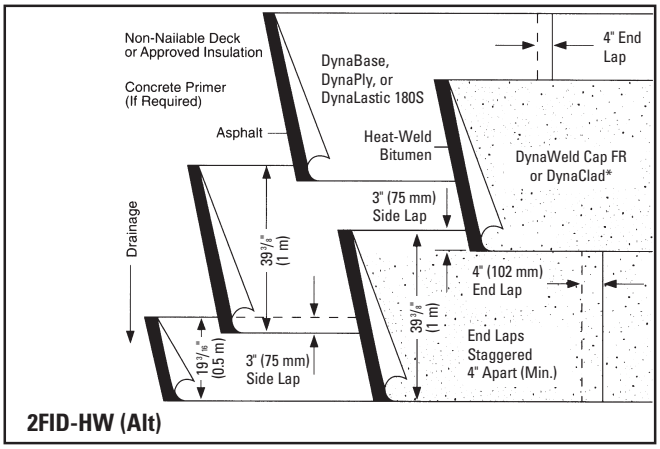
Primer (if required):	
JM Concrete Primer	1 gallon (3.8 liters)
Base Felts:	
DynaBase, DynaPly, or DynaLastic 180S	1 layer
Cap Sheet Options:	
DynaWeld Cap FR or DynaClad*	1 layer

*DynaClad cannot be used for a membrane on any roof that will have significant foot traffic.

Asphalt: Trumbull®*or other JM Approved Asphalt

Incline per foot	Asphalt	Total Weight
Up to ½" (41.6mm/m)	190°F (88°C), Type III, Steep	23 lbs. (14 kgs.)
½" to 3" (41.6 to 250mm/m)	220°F (104°C), Type IV, Special Steep	23 lbs. (14 kgs.)

Approximate installed weight: 184-230 lbs. (86-109 kgs.)



2FID-HW (Alt)

General

This specification is for use over any type of approved structural deck which is not nailable and which provides a suitable surface to receive the roof. Poured and pre-cast concrete decks require priming with JM Concrete Primer prior to application of hot bitumen.

This specification is also for use over JM roof insulations, or other approved roof insulations which are not nailable and which provide a suitable surface to receive the roof. Specific written approval is required for any roof insulation that is not supplied by JM. Insulation should be installed in accordance with the appropriate JM Insulation Specification detailed in the JM Commercial/Industrial Roofing Systems Manual. This specification can also be used in certain reroofing situations. Refer to the "Reroofing" section of the JM Commercial/Industrial Roofing Systems Manual. This specification is not to be used directly over gypsum, either poured or pre-cast, or lightweight, insulating concrete decks or fills.

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 Systems 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.

Roll a 19³/₁₆" (0.5 m) wide piece of one of the base felts listed into a full mopping of bitumen. The remaining base felts are to be applied full width, in the same manner, with 3" (75 mm) side and 4" (100 mm) end laps over the preceding sheets. End laps for DynaLastic 180S are to be 6" (150 mm).

Apply the base felts so that they are firmly and uniformly set, without voids, into the hot bitumen. Bitumen temperature should be at the Equiviscous Temperature (EVT) ±25°F (±14°C), at the point of application.

For modified bitumen sheets, the bitumen temperature shall be at a minimum of 400°F (204°C) or at EVT, whichever is higher, when the sheet is set into it. The higher temperature maximizes the bonding of the modified bitumen sheet. All felt edges shall be well sealed. The bitumen shall be applied just before the felt at a nominal rate of 23 lbs. per square (1.1 kgs./m²). When applying over insulations, more than 23 lbs. per square (1.1 kgs./m²) of bitumen may be needed due to the absorbency of the insulation.

Heat weld a full width piece of one of the cap sheets listed over the installed base felt. Subsequent sheets are to be applied in the same manner, with 4" (102 mm) side laps and 4" (102 mm) end laps over the preceding sheets.

Apply all sheets so that they are firmly and uniformly set, without voids. Using a propane torch, apply the flame to the surface of the coiled portion of the roll. Torch across the full width of the roll and along the lap area. As the surface is heated, it will develop a sheen and the burn-off will disappear. The generation of smoke is an indication that the material is being overheated. Repeat the operation with subsequent rolls, maintaining proper side laps and end laps. A healthy compound flow will simplify seaming the laps. This is done by keeping the flame directed at the adhered ply and in front of the roll. At the end laps, soften the bitumen by heating the granule surface with the torch. When the granules start to sink into the bitumen, stop torching and with a hot trowel, embed the granules into the bitumen. All laps must be checked for good adhesion.

Preparation of the 4" (102 mm) lap of DynaClad requires the removal of 4" (102 mm) of metal surfacing, creating the selvedge edge. Next, apply heat to the lap that is being seamed, making sure there is a compound flow to adhere the two surfaces. All laps must be checked for good adhesion.

Base sheets with polyester reinforcement should be allowed to relax in an unrolled position prior to installation. Reroll both ends to the center. Torch one side down, then proceed with the opposite side.

For special precautions for heat weld applications, see section 7A.31 of the JM Commercial/Industrial Roofing Systems Manual.

For cold weather application techniques, refer to Paragraph 7A.24 of the "Modified Bitumen Specifications" section of the JM Commercial/Industrial Roofing Systems Manual.

Steep Slope Requirements

Special procedures are required on incline over ½" per foot (41.6 mm/m). Refer to Paragraph 7A.21 of the "Modified Bitumen Specifications" section of the JM Commercial/Industrial Roofing Systems Manual.

Surfacing

No additional surfacing is required.

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

* Trumbull is a registered trademark of Owens Corning.