



**Johns Manville**

**SBS Heat-Weld Specifications  
Specification 3FID-HW**

**Three 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 6" per foot (500 mm/m).**

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

**Primer (if required):**  
JM Concrete Primer 1 gallon (3.8 liters)

**Intermediate Plies:**  
DynaWeld Base 2 layers

**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.

Approximate installed weight: 280-300 lbs. (132-142 kgs.).

**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 the first heat welded modified bitumen ply. This specification is not to be used over poured or pre-cast gypsum decks, lightweight insulating concrete decks or fills without JM insulation.

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. **For heat weld application directly to the insulation, the top layer of insulation must be JM DuraBoard™.**

**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.**

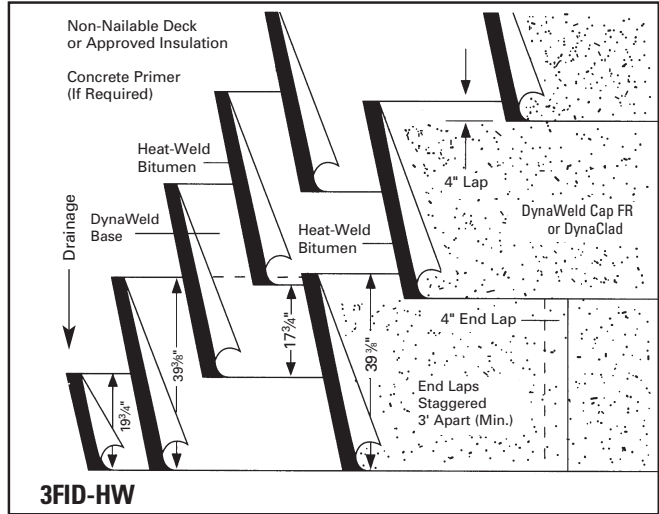
**Note:** All general instructions contained in the current JM Commercial/Industrial Roofing Systems Manual shall be considered part of this specification.

**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 1½" per foot (124.8 mm/m), the roofing felts and modified bitumen sheets may be installed either perpendicular or parallel to the roof incline. Heat Weld a 19 3/4" (502 mm) wide piece of one of the intermediate plies listed. Over that, apply a full width piece. The remaining plies are to be applied full width, overlapping the previous plies by 21¾" (553 mm), so that at least 2 plies cover the substrate at all locations.



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 sheet.

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) end lap of the DynaWeld Cap FR, requires scuffing away all loose granules. Heat and embed all remaining granules. Apply heat to the roll being seamed while making sure both have a good compound flow to adhere the two surfaces. End laps must be checked for proper 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 good compound flow to adhere the two surfaces. Check all laps for good adhesion.

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 JM Commercial/Industrial Roofing Systems Manual.

**Steep Slope Requirements**

Special procedures are required on inclines over 1½" per foot (125 mm/m). Refer to Paragraph 7A.21 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.