

**Bulletin Number:** T22-005

**Date:** July 26, 2022

**Distribution:** External

## Bituminous Membrane Installations – End Lap Considerations

Over the years our industry has seen challenges during the installation of bituminous membranes. Most notably are issues with the preparation of and final installation of end laps. In this bulletin a few critical steps will be defined to ensure a successful installation on your upcoming bituminous projects.

Bituminous membranes are subject to large amount of tension during the manufacturing process, and it is important that products are given time to relax prior to installation. This is particularly important for products containing polyester reinforcement. In most cases this includes rolling the product out and allowing the sun to add heat to the surface initiating the relaxation process prior to installation. Rolling out multiple rolls and stacking them on top of each other will help facilitate the product laying flat, but it will not allow sheets under the top sheet to receive sunlight and achieve the above-described results.

The next step is equally critical in achieving success in installation of these modified bituminous products. Below is an excerpt from our SBS installation guide regarding the treatment of side and end laps for heat welded bituminous products.

15.3 Roofing shall commence at the lowest point of the roof deck with laps installed so that water flows over and not against the lap. Align the roll in the course to be followed and unroll completely. Then reroll both ends to the middle of the roll (scrolling). Using the heat-welding apparatus, apply the heat to the surface of the coiled portion of the roll until the surface reaches the proper application temperature (approximately 330°F [166°C]). The flame should be moved from side to side and the membrane slowly unrolled while pressing the heated portion of the roll into the underlying surface. Apply the heat across the full width of the roll and along the 4" (102 mm) side lap area of the previously installed roll, making an "L" shape. As the surface of the roll is heated, it will develop a sheen. The generation of smoke is an indication that the material is being overheated. Repeat the operation with subsequent rolls, while maintaining a 4" (102 mm) side lap and a 6" (152 mm) end lap. On mineral-surfaced membranes, prior to seaming the 6" (152 mm) end lap, the granules must be embedded by heating the end lap area and then pressing the granules into the compound using a rounded-point trowel or an embedding tool. All laps should be rolled with a lap roller, and a 1/8" (3 mm) to 3/8" (10 mm) bleed out of SBS compound should extend beyond the lap. Check all laps for proper adhesion.

When evaluating product installations, repeated success has been found when the full 6" lap was heat welded and granules had been properly embedded. Failures have occurred when the 6" end lap has not been fully adhered or when granules had not been fully embedded in the bottom sheet. The key is achieving the asphalt-to-asphalt bond that is created when the granules are no longer interfering with that point of contact. Attention to detail in this regard is extremely important in preventing the pullback of polyester materials using this installation method. This process of embedding granules is critical to success on all hot air welded laps as well as torch applied laps.

We are fully committed to ensuring the success of our contractors and our products. Our Field Technical Services Group is available to support installers on the rooftop during installation. If you should need assistance with installations, please do not hesitate to reach out to your local sales representative or JM technical representative for support.