

HOT ASPHALT APPLICATION - GENERAL

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SIPLASTFLASH

At the point of application of the modified bitumen, the mopping asphalt should be at the asphalt manufacturer's specified equiviscous temperature (EVT) or a minimum of 400°F, whichever is higher. This means that the asphalt must be at this temperature at the point at which the sheet contacts the asphalt. Proper asphalt temperatures are essential to ensure adequate adhesion in the application of SBS-modified membranes. In no case should the asphalt be heated to, or exceeding, the flash point published for the specific asphalt being used.

The base ply of SBS modified bitumen membrane may be applied in Type III or Type IV asphalt. Intermediate and finish plies must be applied in Type IV asphalt only. Special precautions must be taken to ensure that the approved Type III or Type IV asphalt maintains a minimum acceptable 400°F (204°C) temperature at the point of sheet application (at 125 cps). Asphalt manufacturers list 2 different EVT for their products: The EVT at 75 cps represents the recommended temperature for asphalt in a mechanical spreading device immediately before application to the substrate. EVT at 125 cps represents the recommended temperature for asphalt in a mop cart immediately before application to a substrate.

- Kettles must have a functioning, accurate thermometer to monitor asphalt temperatures within the kettle.
- Asphalt should never be applied more than 5 feet ahead of the roll, which should be unrolled continuously at a steady pace.
- The mopings should always be "squared off" between mopping intervals.
- The roll should be rolled through the mopped areas and then be backrolled, exposing 2 to 3 inches of asphalt. This procedure eliminates excess asphalt build-up at roll "stops."
- Downward pressure should be kept on the roll throughout the installation to ensure proper embedment. Do not "kick" rolls into the asphalt.
- "Broom" sheets immediately following application to ensure that all sheet surfaces are in contact with the underlying asphalt while it is still at a temperature that will allow for adhesion.
- Air pockets beneath the system or between plies are unacceptable. Any such pockets should be broomed in immediately while the asphalt is still hot.

- Mop carts should never be emptied, nor should mops be “scrubbed” of asphalt residue, over insulation, or ply sheets.

COLD WEATHER PRECAUTIONS

In winter conditions, the asphalt should be as hot as safely possible (high end of acceptable temperature ranges) to compensate for the rapid rate of cooling. Failure to do so may result in poor membrane adhesion. **In no case should the temperature of the asphalt exceed its published flash point.**

Proper insulation of all bitumen handling and transfer equipment is required to keep bitumen hot in cold weather. Insulation of the equipment is equally vital for fuel conservation and will result in savings in make-ready time.

Hot luggers, mop carts, and kettle-to-roof supply lines should be insulated. Hand mops used in cool weather should be smaller than those used in the summer season to facilitate short mopping leads. Luggers and mop carts should never be more than half filled at all times.

During cold weather, and where practical, store rolls in a dry and heated area. Storing the membrane in a heated area prior to use will preserve its flexibility. Bring rolls to the point of application only as they are needed. Where no heated storage area is available, heat conditioning of the rolls with a torch at the point of application will improve their flexibility.

Kettles and other equipment such as luggers and carts should be clean and free of contaminants and other asphalt residue prior to the use of the asphalt to be applied.

Contact the Siplast Technical Services Department for hot asphalt applications on slopes greater than ½ inch and other additional information regarding Siplast’s hot asphalt application requirements.