

Modified Bitumen Cold Weather Recommendations

Approved July 2010

The following outlines suggested practices for using modified bitumen membrane products during periods of colder weather. Ambient temperatures of 40° F (-13.3° C) or below can alter the installation of characteristics of modified bitumen roll goods and adhesives. Factors such as cloud cover, humidity and wind also have an impact on the application character of modified bitumen products. These guidelines are not absolute; the SPRI manufacturer/supplier should be contacted for specific requirements & recommendations.

STORAGE OF MODIFIED BITUMEN MATERIALS

- Keep all materials dry.
- Store materials in a heated area. Do not use torch or open flame to warm containers of cements, adhesives or coatings.
- Properly tarp materials when stored outside including mopping asphalt cartons.
- Store rolls on end, on pallets. Do not double stack rolls or pallets.
- Follow proper safety recommendations and requirements for storage of torching equipment and propane tanks.

HANDLING OF MATERIALS PRIOR TO APPLICATION

- Unroll modified bitumen rolls and allow to relax and lay flat prior to installation, except on torch applications. Relaxation may not be required for torch applications, consult the SPRI manufacturer / supplier for specific requirements. Rolls can be cut in half to aid cold weather application.
- Heat asphalt to proper temperature. Do not overheat asphalt to compensate for colder temperature.
- The surface to be roofed must be clean, dry, and free of ice, moisture and debris.

APPLICATION OF MODIFIED BITUMEN

- Cooler temperatures affect the application rates of cements and coatings. Consult the manufacturer for product recommendations and application guidelines. Monitor usage rates during application.
- All mopping asphalt handling equipment should be properly insulated, including tanker trucks, rooftop luggers, mop buckets and asphalt lines to the roof.
- Utilize a smaller (winter grade) mop head to facilitate smaller moppings.
- Recognizing the rapidly cooling nature of asphalt in cold weather, fill asphalt carts with only the amount of asphalt that can be kept at EVT, and utilize shorter mop runs.
- Due to the rapid cooling of the mopping asphalt, application distance from the roll must not exceed a length which allows proper minimum application temperature of 400°F. Do not mop out more than 4-5 ft (1.2-1.5m) in front of a roll. Immediately embed the sheet into the mopping of the hot asphalt.
- Consult ASTM D 6510 for additional information concerning mopping asphalt recommendations.
- Use sufficient pressure on the sheet in addition to proper asphalt temperature to insure adequate adhesion to substrate or base ply, check for adequate adhesion frequently.
- Spray equipment for solvent based adhesives should utilize an in-line, heat-transfer-fluid type heating element to ensure a proper application temperature.

Disclaimer

SPRI has prepared these generic specifications for use only as a guideline. The guide is not intended to be used verbatim as an actual specification. Specific installation instructions and procedures for each particular job must be obtained from the manufacturer supplying the materials. SPRI, its members and employees do not warrant that this standard is proper and applicable under all conditions.

- Cold process adhesives become more viscous at lower temperatures, which affect application rates. Discontinue application if the rate exceeds the manufacturer's maximum guidelines.
- Utilize a roller, "follow tool" or similar device on the laps to insure adhesion.
- Torch wagons should include a wind reflector on the sides.
- Self-adhesive modified bitumen membranes require special precautions for application in colder temperatures. Consult the SPRI manufacturer/supplier for specific recommendations.

The above recommendations are general guidelines only. The quality of the application should be the determining factor in whether roofing in cold weather should be continued by the roofing contractor.

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