

Bulletin Number: T23-002

Date: April 13, 2023

Distribution: External

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Water-Based Application for Single Ply Cold Weather Considerations

It is that time of year when we begin to ship water-based adhesives. We would like to remind our customers of proper handling and application during these early Spring weeks.

Background

As indicated in the JM single ply application instructions, product data sheets, industry bulletins published by the Single Ply Roofing Institute (SPRI) and JM published bulletins, the installation of single ply membranes (EPDM, PVC and TPO) at cooler temperatures (below 50°F, 10°C) requires additional care and consideration than what may otherwise be required in optimal weather conditions. This additional care includes allowing extra time for the membrane to visually “relax” (i.e., lay flat) prior to installation and additional preparation of the water-based adhesives for their successful use and installation.

There are many variables to consider when using adhesives during cooler temperatures, and all water-based adhesives for roofing applications will take longer to dry in cool and high humidity conditions.

Installation Requirements

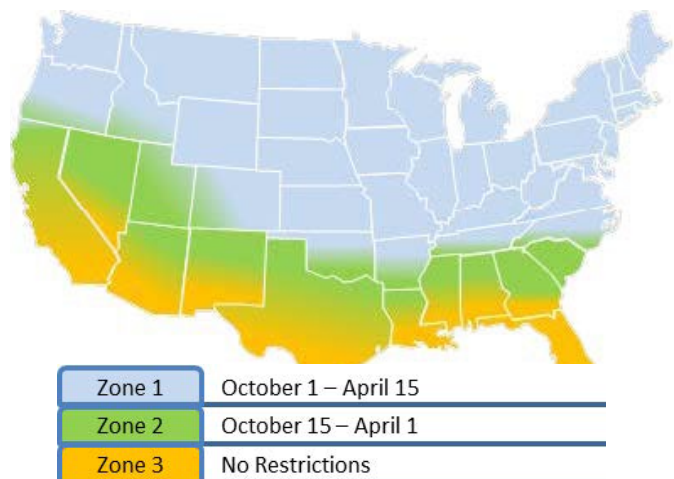
Water-based adhesives may not be used in situations when the ambient temperature is expected to fall below the dew point* at any point during application.

Typically, the situation when ambient temperature will fall below the dew point is in the cooler months of the year. As a result, Johns Manville restricts *any and all* shipments of water-based single ply adhesives from October 1 through April 15 (see shipping restrictions map below.)

Water-based adhesives should NOT be applied:

- At temperatures below 5°C (or 40°F).
- At very high (>90%) relative humidity or when rain is expected.
- When the dew point and the ambient temperature does not have a separation of more than 5° and is not expected to be more during application time.
- When temperatures can be expected to fall below the dew point during application and/or up to 6 hours post application.
- When temperatures are expected to fall below freezing within 48 hours of application.

*Dew point definition - the temperature below which the water vapor in a volume of humid air at a given constant barometric pressure will condense into liquid water at the same rate at which it evaporates. Condensed water is called dew when it forms on a solid surface. The dew point is a water-to-air saturation temperature.



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Freeze Alert

Water-based adhesives cannot be exposed to temperatures below freezing at any time before or during installation. It will be visually observable that the water-base adhesive has become frozen when returned to room temperatures (about 70°F [21°C]) because the adhesive will remain in a solid state with residual liquid present in the container. The adhesive will not be able to be mixed or reconstituted back into a uniform mixture. If this occurs, do not use the water-base adhesive and dispose of the material following your local and State disposal guidelines.

Adhesive Storage & Transportation

Water-based adhesives should be stored in a protected area between 60°F and 80°F (16°C and 27°C). When placing an order, please work with your JM Customer Service Advocate to consider the season and shipping location.

Please visit www.jm.com/roofing to view the latest specifications and system requirements or contact your JM Regional Service Team contact at (800) 922-5922 option 3.

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