



Cold Weather Application Tips for Roof Coatings

The viscosity of bitumen is temperature sensitive ... thinner, more fluid when hot, thicker, more viscous when cold ... today's manufacturers of cold applied [liquid at room temperature] asphalt roof coatings formulate their product to be usable at ambient temperatures as low as 40°F and up to a high temperature of around 120°F. Water-based coatings and coal tar coatings are usually applied at a 50°F or higher range.

In order to cover the wide temperature range, some manufacturers offer "all temperature" products; while others may offer winter grade, summer grade or intermediate grade products. Check with your supplier or manufacturer to determine which route they follow to enable a proper product selection. If the manufacturer offers various viscosity grades, be certain to find out how to distinguish one grade from the other. Also, check about how the containers are marked and identified. Whatever the weather, there are always important "do's and don'ts" to follow for a successful system application.

Storage:

Keep the product as close to room temperature as possible. A heated warehouse is ideal. If kept outside, store the containers as close together as possible under a tarp. This will slow down the internal temperature drop of the product, keeping the viscosity and application properties closer to standard for a longer period of time. This is also important when using asphalt saturated roofing felts in cold weather. These felts can become brittle when cold and can crack at temperatures under 40°F. Unsaturated membranes, such as polyester, are not affected by cold temperatures (but must be kept dry).

Heating:

With proper storage, heating should not be necessary. On the job site, the use of heated storage cabinets/units for heavier bodied coatings, or warming devices which use circulating oil to heat liquid roofing materials for easier spray application, may be utilized. Consult the equipment manufacturer for information on the safety requirements pertaining to whichever heating equipment is used.

Surface Preparation:

Never apply the product to a frost or ice covered surface. Once the area is free of frost, ice and/or snow, follow the manufacturer's standard application directions. In addition to removing frost, ice and/or snow, the surface must be dry for solvent-based coating products unless using specially formulated wet surface products. Slightly damp conditions may be acceptable for emulsions.

continued ...

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Application:

If possible, wait until the afternoon on a sunny day. This will enable the roof to warm up as much as possible. Remember when working with a black roof, the surface will absorb heat, making the roof temperature warmer than the air temperature. This will improve the overall cure rate. Special considerations may be required for certain coatings, such as emulsified asphalt aluminums. Specific instructions from the manufacturer should be followed.

Cure Time:

While modern technology permits the application at low temperatures, you can expect the cure time to be longer than on a warm summer day. A product that may cure overnight at a temperature of 70°-75°F may take several days to cure at 40°F.

Remember that emulsion type coatings require temperature conditions which permit thorough evaporation of the water content before the film is subjected to rainfall, freezing, or standing water. One can also consider use of an polymer-modified emulsion for use in cooler temperatures as these products tend to have shorter set and cure times.

In conclusion ... select one of the many fine roof coating products that have been formulated for use during cold weather. When in doubt concerning the product or the particular weather conditions, it is always advisable to give the manufacturer or supplier a call to discuss your particular situation and product selection so that your cold weather application or repair will yield the desired results.

Note: These recommendations were prepared by and have the approval of the Roof Coating Manufacturers Association for informational purposes only. They are not intended to revoke or change the requirements or specifications of the individual roofing material manufacturers or local, state and federal building officials that have jurisdiction in your area. Any question, or inquiry, as to the requirements, or specifications of a manufacturer, should be directed to the roofing manufacturer concerned.

