

Tech Talk

DOW CORNING® SILICONE SEALANTS

This issue of Tech Talk covers the subject of using Dow Corning® Silicone Building Sealants in cold weather applications. Dow Corning Silicone Building Sealants can be applied in cold weather installations. Follow the guidelines recommended in this Tech Talk along with Dow Corning's published literature for the product being used. Refer to the chart below for the low temperature application limit of each sealant. By combining these sources of information with the good judgment of the technician on the job site; it is permissible to caulk in cold weather.

SUBSTRATE PREPARATION

When caulking at temperatures below the dew and frost point, 40 °F and lower, the surfaces must be clean, dry and frost free.

A torch is not recommended to dry the joints. This may leave hydrocarbon deposits on the surface that can impede adhesion. Do not dry the joints with a heater or blow dryer. Heating can cause a problem with moisture condensation occurring on metal once it cools. A moisture meter should be used to assure the substrates are dry before caulking; a control sample can be kept in the job office for reference if there are any questions.

Metal surfaces can be dry wiped and then solvent cleaned, using the two rag wipe method. IPA and methylethylketone (MEK) are soluble in water and may be more appropriate for winter cleaning as they help in removing condensation and frost.

SEALANT APPLICATION

No sealant should be installed immediately following or in anticipation of rain or snowfall. If unexpected snow or rain occurs, note it in the project log so field testing can be done on the potentially affected areas approximately two weeks later.

Dow Corning Silicone Building Sealants are not water based, so freezing temperatures above the limits given in the chart below will not cause the sealants to thicken excessively. This characteristic allows the sealants to be applied in cold weather.

In cold temperatures, the cure rate may be slower, because colder temperatures generally have lower humidity levels that will affect the cure rate. Dow Corning one part sealants require moisture in the atmosphere to cure. The sealants will ultimately cure to the same physical properties as they do when applied in warmer temperatures.

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COLD WEATHER APPLICATION OF LOW TEMPERATURE APPLICATION LIMIT

Dow Corning® 790 Silicone Building Sealant -37°C (-35°F)

Dow Corning® 791 Silicone Perimeter Sealant -29°C (-20°F)

Dow Corning® 795 Silicone Building Sealant -29°C (-20°F)

Dow Corning® 995 Silicone Structural Adhesive -26°C (-15°F)

Dow Corning® 756 SMS Silicone Building Sealant -29° (-20°F)

Dow Corning® Contractors Weatherproofing Sealant -29°C (-20°F)

Dow Corning® Contractors Concrete Sealant -29°C (-20°F)

For further information, contact your Dow Corning Application Sales Engineer