January 3, 2014

Reference: Installation of DOWSIL™ Silicone Building Sealants in Cold Weather

Dear Dow Customer:

The purpose of this letter is to address the cold weather installation of DOWSIL™ silicone building sealants.

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. The use of a paper product, such as a facial tissue, blue shop paper towel or a brown paper towel, is one way to verify the dryness of a surface. Place the paper product/towel around the end of the forefinger and press firmly against the substrate and then hold the towel up to the light. If a difference in color is observed, it indicates the presence of dampness. The substrate should be dry, thereby the paper towel should be dry after touching it to the substrate, before proceeding with applying DOWSIL™ brand silicone sealants. Metal surfaces can be dry wiped 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.

DOWSIL™ 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. DOWSIL™ 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.
Cold Weather Application — Low Temperature Application Limit

DOWSIL™ 790 Silicone Building Sealant -20°F (-29°C)
DOWSIL™ 791 Silicone Weatherproofing Sealant -20°F (-29°C)
DOWSIL™ 795 Silicone Building Sealant -20°F (-29°C)
DOWSIL™ 995 Silicone Structural Sealant -20°F (-29°C)
DOWSIL™ 756 SMS Building Sealant -20°F (-29°C)
DOWSIL™ 758 Silicone Weather Barrier Sealant -20°F (-29°C)
DOWSIL™ Contractors Weatherproofing Sealant -20°F (-29°C)
DOWSIL™ Contractors Concrete Sealant -20°F (-29°C)
DOWSIL™ 1199 Silicone Glazing Sealant -20°F (-29°C)

If you have any questions, do not hesitate to call. On behalf of Dow, I would like to thank you for your support and choice in silicone technology.

Sincerely,

The Dow Chemical Company

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