Cold Weather Veneer Setting and Pointing
TDS 175M

Conventional portland cement masonry veneer setting beds, pointing mortar and mortar beds are often permanently damaged when subject to below freezing temperatures immediately after installation. The water content of a mortar turning into ice often results in portland cement gel structure rupturing with significant loss in strength, flexibility and durability. Subsequent repairs to the damaged work and resulting site delays are extremely costly.

There is a simple rule to follow when the temperature is low during installation: The 18º (8ºC) Rule – for every 18ºF below 70ºF (8ºC below 21ºC), portland cement and epoxy based materials take twice as long to cure.

**Polymer Fortified Mortars**

The use of a premium polymer fortified setting adhesive mortar (e.g. MVIS™ Hi-Bond Veneer Mortar, MVIS Veneer Mortar, MVIS Lightweight Mortar, MVIS Thin-Brick Mortar, MVIS Premium Mortar Bed, etc…) will allow work to continue in cold weather without costly delays or damage. For all polymer fortified mortars, the typical recommended surface temperature is 40ºF (4ºC) and rising. Materials cannot be applied if temperature is expected to drop below 40ºF (4ºC) in the next 72 hours, unless the area is tented and heated.

Rapid polymer setting adhesives (MVIS Hi-Bond Veneer Mortar Rapid) will also help to accelerate the setting time in cooler temperatures which allows work to take place and can quickly return newly installed masonry veneer back to service in cooler temperatures …

**Shipping and Storage**

For best results, always ship and store installation materials at temperatures above freezing so they will be ready to use when needed.

1. Allow the products to come up to room temperature of approximately 70ºF (21ºC). Stir contents thoroughly before use or before mixing with setting beds, pointing mortars and other portland cement mortars.
2. MVIS and LATAPOXY® liquid pouches stored in cooler temperatures should be warmed by submerging the unopened pouches in warm water until the material is sufficiently tempered.
3. Acclimate waterproofing membranes, and air barrier (MVIS Air & Water Barrier) products to their respective usage temperature range prior to use.
4. Store all mortars, polymer fortified adhesive mortars, and pointing products in a warm area for 24 hours prior to use.

**Protection**

Due to the slow rate of portland cement hydration and strength development at low temperatures, protect installations for longer than normal periods. Allow extended cure time, based on the 18º Rule (above), for installation in cooler temperatures. Suitable protection should be included in the scope of work. In addition, extended cure periods will be required for applications that include multiple layer build ups (e.g. mortar beds, waterproofing, pointing mortars, etc…). Each component must reach a proper cure prior to installing the subsequent installation product.
Helpful Hints

1. Work during warm periods of the day.
2. Ensure that the surface temperature is within the suggested temperature range for the MVISTM or LATAPOXY® product being used during the installation and cure period. Consult the individual MVIS or LATAPOXY product data sheet and How to Install guide for more information.
3. Tent and heat areas that will be subjected to the elements or freezing temperatures during installation and cure periods. The installation areas should be sheltered and heated to keep the temperature above 40°F (5°C).
4. Vent all temporary heating equipment in accord with OSHA (Occupational Safety and Health Administration) and local building code regulations.

Refer to the National Concrete Masonry Association (NCMA/Masonry Veneer Manufacturer’s Association (MVMA) Installation Guide and Detailing Options for Compliance with ASTM C1780 – Cold Weather Application section for further information. Click here for a copy of this guide.