



Globally Proven
Construction Solutions

LATICRETE Leveling Cold Weather Installation Considerations

TDS-1175L

Cementitious self-leveling underlayments, patching materials, lightweight mortars, and wearing surfaces can be permanently damaged when installed on excessively cold substrates. Installation of these materials can also be challenging in areas with low ambient air temperature and/or low humidity conditions during, and immediately after placement. Low humidity and low substrate and/or air temperatures can cause slow setting and lengthened working times with cementitious products. These factors can cause excess water left over from cement hydration, curing, and strength development to take more time to evaporate into the air. Furthermore, the reaction occurring with these materials is retarded thus increasing the time for strength development. In addition, slow drying may cause cementitious material to crack, crumble or lose adhesion. Primers, membranes, and epoxy products, will also be affected by cold working temperatures. It is important to note that substrate temperature is often overlooked but is just as important as air temperature. Therefore, closely monitor the surface temperature of the substrate as well as the air.

A simple guideline to use when an installation is subjected to high temperatures: The 10° Rule – for every 10°C below 21°C cement, latex and epoxy based materials working properties including pot life, open time, working time, etc... will be doubled. Example: if a self-leveling product has a working time of 15-20 minutes and the air or substrate temperature is 11°C, the setting time would typically increase another 15 -20 minutes. The following precautions can be followed to maximise the performance of LATICRETE products and minimise the amount of potential issues which can result from high temperature;

- When possible, run heat in building for 24 – 48 hours prior to installation. In multiple floor buildings heat rooms directly below the floor to be installed.
- Ensure on site mixing water temperature is between 5°C and 32°C, preferably $\geq 21^\circ\text{C}$.
- Block windows, doors and openings to help prevent heat loss.
- Store LATICRETE products in a warm area for 24 hours prior to use. Ideally, products should always be stored at 21°C for 24 hours prior to use.
- Work during warmer parts of the day.
- DO NOT vary the amount of mix water to compensate for the cold weather.
- Always follow the LATICRETE installation instructions located at www.laticrete.com.au and on the LATICRETE packaging.
- Vent all temporary heating equipment in accord with appropriate occupation health regulations and local building code regulations.
- Prevent PRIMER from freezing. If PRIMER freezes it should not be used, as the latex in the primer will not go back into suspension and will not be dispersed properly during application.
- Plan for longer PRIMER dry time and longer time to traffic.

For installation of floor coverings, please follow the installation instructions as provided by the manufacturer of the flooring.

Contact LATICRETE Technical Services at 1 800 331 012 or your local LATICRETE Technical Sales Representative for more information.

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