



Globally Proven
Construction Solutions

LATICRETE Levelling Hot Weather Installation Considerations

TDS-1176L

Cementitious self-leveling underlayments, patching materials, lightweight mortars, and wearing surfaces are often permanently damaged when installed on excessively hot substrates or in high ambient air temperature and/or low humidity conditions during and immediately after installation. Low humidity, high substrate and/or air temperatures can cause rapid setting and reduced working time. These factors can cause water required for cement hydration, curing and strength development to rapidly evaporate into the air. In addition, rapid drying may cause cementitious material to crack, crumble or lose adhesion. Primers, membranes, and epoxy products, will also be affected by hot 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. Areas exposed to direct sunlight through windows or openings can have a significantly higher surface temperature.

A simple guideline to use when an installation is subjected to high temperatures: **The 10 ° Rule** — for every 10°C above 21°C cement, latex and epoxy based materials working properties including pot life, open time, working time, etc. will be cut in half. Example: if a self-leveling product has a working time of 15–20 minutes and the air or substrate temperature is 31°C, the working time can be reduced to 7-10 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 air conditioning in building for 24 – 48 hours prior to installation. An environment from 20°C – 22°C and 50% RH is ideal.
- Ensure on site mixing water temperature is between 5°C and 32°C, preferably $\leq 21^\circ\text{C}$.
- Block windows and opening to prevent direct sunlight on the substrate.
- Keep products and water used for mixing out of direct sunlight and in an air conditioned building.
- When barrel mixing, use bags of ice to chill water in larger containers. Do not allow ice to be mixed in products.
- When pumping equipment is used, keep hoses and mixing equipment out of direct sunlight.
- Consider working at night, after sunset or early in the morning while temperatures may be cooler.
- DO NOT overwater the products to compensate for the effect of hot weather.
- Always follow the LATICRETE installation instructions located at www.laticrete.com.au and on the LATICRETE product packaging.

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

Contact LATICRETE Technical Services at 1800 331 012 or your local LATICRETE Technical Sales Representative for more information.