



Commercial Freezers and Coolers

TDS 121

Commonly commercial kitchens and many other industries have tile floors installed inside of cooler or freezer units. A commonly asked question associated with this type of installation is; “How can tile be repaired or installed without having to turn the freezer unit off”? Simple answer, it should not be done. However, work can take place inside of operational cooler units provided that the temperature range is within the published product guidelines and rapid curing products are used.

Installation materials have working temperatures that must be adhered to for proper curing of the thin-sets and grouts. Installing tile over a substrate that is colder than the recommended temperatures will cause the thin-sets and grouts to not cure, or, cure over a lengthy period of time. This can dramatically affect the overall hardness, bond strengths, compressive strength, and long-term performance of the mortar and grout. The best alternative is to make sure that the cooler is turned off. The surface that is to be tiled should be between 60°F (16°C) and 90°F (32°C) for epoxy adhesives and epoxy grout; between 40°F (4°C) and 90°F (32°C) for cement based thin-sets and grouts; and between 45°F (7°C) and 90°F (32°C) for waterproofing or crack suppression/anti-fracture membranes. Make sure that no standing water is present during installation on floors.

For installation over the most common cooler/freezer substrates;

For concrete or mortar beds;

1. After the concrete or mortar hardens, HYDRO BAN® XP, HYDRO BAN or 9235 Waterproofing Membrane may be installed where specified.
 2. Tile may be installed with 254 Platinum, 254 Platinum Plus, MULTIMAX™ LITE, 254R Platinum Rapid, or, for areas where a more chemically resistant adhesive is necessary use LATAPOXY® 300 Adhesive or LATAPOXY BIOGREEN™ 300 and allow to harden.
 3. For areas subjected to food acids, harsh chemicals, grout with SPECTRALOCK® 2000 IG.
- * Refer to LATICRETE ES-R612 for a more complete description of this method.

For installing over steel/metal the preferred method for installation is;

1. Steel, metal or aluminum substrates must be rigid and meet the standard for maximum allowable deflection of L/360 for tile.
 2. Tack weld or mechanically fasten 3.4# diamond metal lath complying with the current revision of ANSI A108.1 (3.3 Requirements for lathing and portland cement plastering), ANSI A108.02 (3.6 Metal lath) and A108.1A (1.0 – 1.2, 1.4, & 5.1). Apply latex-portland cement mortar as scratch/leveling coat comprised of 3701 Fortified Mortar; or, 226 Thick Bed Mortar gauged with 3701 Mortar Admix over wire lath, concrete or masonry in compliance with current revision of ANSI A108.01 (3.3.5.1) and A108.1A (1.4). Float surface of scratch/leveling coat plumb, true and allow mortar to set until firm.
 3. Install HYDRO BAN XP, HYDRO BAN or 9235 Waterproofing Membrane (if specified) over the hardened concrete or mortar bed.
 4. Tile can then be installed with 254 Platinum, 254 Platinum Plus, MULTIMAX™ LITE, or 254R Platinum Rapid.
 5. For areas subjected to food acids or harsh chemicals, grout using SPECTRALOCK 2000 IG.
- * Refer to LATICRETE ES-S314 for a more complete description of this method.

The alternative method for installation directly over steel is;

1. Steel or aluminum must be rigid, meet the standard for maximum allowable deflection of L/360 for tile and be free of rust, dirt, paint, manufacturing oils, or other types of surface contamination.
2. Wash steel surface with strong detergent to ensure that all manufacturing oils are removed, rinse completely and allow to air dry.
3. If possible, scuff up the surface of the steel or aluminum with sandpaper or emery cloth and then re-wash the surface, rinse completely and allow to air dry.

4. Install tile or stone with LATAPOXY® 300 Adhesive or LATAPOXY BIOGREEN™ 300 by following instructions outlined in DS 633.0 and DS 631.5.
5. For areas subjected to food acids, harsh chemicals, grout using SPECTRALOCK® 2000 IG.

* Refer to LATICRETE ES-S313 for a more complete description of this method.

Once installed, surface temperatures should remain above the minimum temperature range. It is recommended that a surface temperature of 70°F (21°C) be maintained for 72 hours after installation.

Refer to all product data sheets for specific installation methods.

Technical Data Sheets are subject to change without notice. For latest revision, check our website at www.laticrete.com
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