



Installation of Tile or Stone Over Concrete with Crystalline Waterproofing TDS 142

Recently we have seen an increase in the amount of tile and stone installed over concrete or concrete masonry units that have been treated with a crystalline waterproofing. These waterproofing materials are designed to fill the concrete pores and capillaries with crystals that form when the waterproofing is exposed to moisture. In design and principal they do a very good job of significantly lowering the porosity of the concrete, reducing shrinkage and cracking, improving freeze/thaw resistance and improving concrete durability. These facts mean that crystalline waterproofing materials are a boon to the concrete industry.

Crystalline waterproofing can be used in 4 ways: 1) it can be applied to the surface of new or existing concrete as a slurry and allowed to dry, 2) dry shake application onto fresh concrete and incorporated into the concrete during the finishing process, 3) applied to the surface of construction joints between pours, and 4) mixed into the concrete as an admixture. It should be noted that crystalline waterproofing is most often not compatible with a tile or stone installation directly applied to the treated concrete. Concrete treated with crystalline waterproofing, whether applied topically or added as an integral component of the concrete pour, can be viewed within the tile industry much the same as a concrete slab that has a curing compound or concrete sealer on it.

A crystalline waterproofing forms a relatively smooth surface and fills the concrete pores. The waterproofed surface may not have enough porosity to ensure proper bond of cementitious tile setting materials or plaster. It would be necessary to field test the waterproofed surfaces to determine what preparation is necessary to ensure adhesion. This preparation can include mechanical abrasion, bead-blasting, high pressure water blasting, shot-blasting, or acid etching (not a preferred method prior when setting tile or stone).

LATICRETE® Hydro Ban™ and LATICRETE 9235 Waterproofing Membrane are cold liquid, latex-based waterproofing membranes which are manufactured to be used as a component of the LATICRETE System. LATICRETE Hydro Ban and LATICRETE 9235 Waterproofing Membrane also act as anti-fracture membranes which can accommodate up to 1/8" (3mm) of lateral movement. Crystalline waterproofing is a component of the concrete and will not accommodate any type of movement or provide any anti-fracture capabilities. Tile can be installed onto LATICRETE Hydro Ban or LATICRETE 9235 Waterproofing Membrane in as little as 1 - 4 hours (at 70°F [21°C]) after installation using LATICRETE 254 Platinum or any of our latex-fortified or polymer-fortified thin-set mortars. Concrete treated with crystalline waterproofing requires a minimum cure time of 3 weeks or more prior to installation of finish coating or tile, and the surface of the concrete would have to be properly prepared prior to installing the finish material.

LATICRETE can provide you with superior installation materials, single source responsibility, knowledge gained from over 50 years of quality installations around the world, and the LATICRETE 25 Year System Warranty (DS 025.0) when using a full LATICRETE System*.

* Visit www.laticrete.com for information on warranties.

Technical Data Sheets are subject to change without notice. For latest revision, check our website at www.laticrete.com
TDS 142.doc R 7 December 2009



LATICRETE INTERNATIONAL, INC. ▪ 1 LATICRETE Park North ▪ Bethany, CT 06524-3423 USA
800.243.4788 ▪ support@laticrete.com ▪ www.laticrete.com

©2009 LATICRETE INTERNATIONAL, INC. LATICRETE, LATAPOXY, SPECTRALOCK and the  logo are Registered Trademarks of LATICRETE International, Inc.