



PRODUCT TESTING SERVICE

100 Clemson Research Blvd. Anderson, SC 29625 Tel (864) 646-TILE Fax (864) 646-2821

TCNA TEST REPORT NUMBER: TCNA-077-07

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TEST REQUESTED BY: Laticrete International, Inc.
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Bethany, CT 06524

TEST SUBJECT MATERIAL: Identified by client as: Hydro Ban 9255 (ZZ-99RR)
Waterproof Membrane

TEST DATE: March 21, 2007 – March 22, 2007

TEST PROCEDURE: ASTM C627: "Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester"

Materials:

A thin-set installation over a concrete base was prepared using the following materials:

- 1) A 42" x 42" x 2" concrete base with a steel trowel finish
- 2) Laticrete Hydro Ban 9255 (ZZ-99RR) waterproof membrane
- 3) Laticrete 254 Platinum multi-purpose thin-set
- 4) 12" x 12" Crossville porcelain tiles with 1/4" grout joints
- 5) Laticrete 1524 fortified cement grout
- 6) Laticrete 1776 grout admix

Base and Underlayment:

Hydro Ban water proof membrane was troweled over the concrete base with a 3/16" x 5/32" V-notched trowel. The ridges were smoothed with the flat side of a notched trowel. The membrane was applied to a wet film thickness of 20 mils. The first coat was allowed to cure per manufacturer's instructions. The second coat was applied two hours later in the same manner. After applying the second coat the thickness was confirmed to be 40 mils by measurement. The installation was then allowed to cure for 24 hours before setting the tile.



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Tile and Grout:

Thin-set mortar, mixed with water per manufacturer's instructions, was troweled over the waterproof membrane with a $\frac{1}{4}$ " x $\frac{1}{4}$ " square-notched trowel. The thin-set mortar was first keyed-in with the flat side of the trowel and then combed with the notched side to form parallel ridges. The porcelain tiles were set in the thin-set by pressing down and sliding the tile in a direction perpendicular to the combed ridges. A beat-in block and rubber mallet were used to reduce lippage between tiles. After the tiles were installed, the thin-set was allowed to cure for 24 hours before grouting.

Cement grout, mixed with admix per manufacturer's instructions, was forced into the $\frac{1}{4}$ " grout joints with a rubber float. Excess grout was removed with the edge of the float by holding the float at a 90° angle. The grout was allowed to set up for approximately 20 minutes before the installation was cleaned with a sponge and clean water. The grouted installation was subsequently allowed to cure for 28 days.

At the end of the cure period, the installation was subjected to load cycling as defined in ASTM C-627.


TEST RESULTS:

The installation completed fourteen cycles (steel wheels, three hundred pounds per wheel) with no evidence of damage to the tiles or grout joints.

*All evaluation criteria were based on 8 tiles and 8 grout joints in the wheel path of the Robinson-Type Floor Tester.

CONCLUSION:

In accordance with the Performance-Level Requirement Guide of the 2007 Handbook for Ceramic Tile Installation, page 15, the installation is classified as "EXTRA HEAVY" for "extra heavy and high-impact use in food plants, dairies, breweries, and kitchens".



 Virgil Iflick
 Director of Laboratory Services

4/13/07

 Date