

100 Clemson Research Blvd.

Anderson, SC 29625 Tel (864) 646-TILE Fax (864) 646-2821

January 21, 2014

Laticrete International Attn: Jonathan Scott 91 Amity Rd. Bethany, CT 06524-3423

Dear Mr. Scott,

Tile Council of North America has tested the samples you submitted. Test report TCNA-808-13 is enclosed. If you have any questions or concerns, please contact us.

Best Regards,

TILE COUNCIL OF NORTH AMERICA, INC.

Katelyn Simpson Laboratory Manager

**Enclosures** 



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TCNA TEST REPORT NUMBER: TCNA-808-13

**TEST REQUESTED BY: Laticrete International** 

Attn: Jonathan Scott

91 Amity Rd.

Bethany, CT 06524-3423

TEST SUBJECT MATERIAL: Identified by client as: "Laticrete Hydro Ban Sheet Membrane"

**TEST DATE:** January 17 - 20, 2014

**TEST PROCEDURE:** ASTM C627: "A Standard Test Method for Evaluating Ceramic Floor Tile

**Installation Systems Using the Robinson-Type Floor Tester**"

#### TEST AND MATERIAL DESCRIPTION:

As per client's request, the following materials have been used for the preparation of the testing pads.

Material Description			
Item #	Product name and size	Item Number	Provided By:
1	Concrete base with a smooth finish	N/A	TCNA
	Nominal Size: 48" x 48" x 2" (1219 mm x 1219 mm x 51 mm)		
2	Laticrete Hydro Ban Sheet Membrane	134810377828	Laticrete International
3	Laticrete 254 Platinum thin-set mortar	0254-0050-22	Laticrete International
4	Laticrete Hydro Ban Sheet Membrane sealing tape	N/A	Laticrete International
5	12"x12" Crossville porcelain tile	A850	TCNA
6	Laticrete SpectraLOCK PRO Premium Grout (Part A 637036 and	S225P1-NS-02	Laticrete International
	B 653159)		
7	Laticrete SpectraLOCK PRO Part C Powder	1239-0409-2	Laticrete International

#### TYPE OF INSTALLATION:

All the materials used were specified by the client and the tested assembly was built per the client's instructions. The installation was a porcelain tile over a membrane, over concrete.

The porcelain tiles were installed over the "Laticrete Hydro Ban Sheet Membrane" using "Laticrete 254 Platinum thin-set mortar". Further details about the installation are provided below.

> Katelyn Simpson Laboratory Manager



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#### Base:

A 48" x 48" x 2" concrete base was prepared and cured for a minimum of 28 days prior to testing.

### **Underlayment:**

The installation of the membrane was performed by a Laticrete representative. The installation procedure is outlined below.

The Hydro Ban Sheet Membrane was cut into two pieces. Laticrete 254 Platinum thin-set mortar, mixed with water by the Laticrete representative, was troweled over the concrete subfloor with a 1/4"x 3/16" V-notched trowel. The thin-set was first keyed-in with the flat side of the trowel and then combed with the notched side to form parallel ridges. The Hydro Ban Sheet Membrane was placed in the thin-set with an abutted seam running down the centerline of the system. Additional thin set was also applied to the seam with the 1/4"x 3/16" Vnotched trowel. Hydro Ban sealing tape was placed over the seam overlapping the corners by 2". The tape was smoothed with a flat trowel to attempt to remove all air bubbles.

### Tile preparation:

The tiles used were 12" x 12" porcelain tiles. No cutting was required.

### Tile and Grout:

All tile installation was performed by a Laticrete representative and all grouting installation was performed by a TCNA representative. The installation procedures are outlined below.

Laticrete 254 Platinum thin-set mortar, mixed with water per the manufacturer's instructions (mix ratio 20.9:100), was troweled over the underlayment with a 1/4" x 3/8" square -notched trowel. The thin-set was combed with the notched side to form parallel ridges. The tiles were back buttered to ensure proper coverage. The porcelain tiles were set in the thin-set mortar by pressing down and sliding the tiles in a direction perpendicular to the combed ridged. Once set, the system was allowed to cure for 24 hours before grouting.

Laticrete SpectraLOCK Premium Epoxy Grout, mixed with per manufacturer's instructions, was forced into the 1/8" grout joints with a rubber float. Excess grout was removed with the edge of the float. The grout was allowed to set up for approximately 20 minutes before the installation was cleaned with a sponge and water. The grouted installation was subsequently allowed to cure for 31 days.

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### **TEST RESULTS:**

The installation completed all fourteen cycles 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 and Selection Table of the 2013 *TCNA Handbook for Ceramic, Glass, and Stone Tile Installation* (page 40), the installation is classified "EXTRA HEAVY"

Katelyn Simpson Laboratory Manager <u>1/21/14</u> Date



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### **Appendix:**

Photos



Image 1: Full assembly after testing

Katelyn Simpson Laboratory Manager <u>1/21/14</u> Date