



## PRODUCT TESTING SERVICE

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

September 10, 2015

dB Sound Control, Division of United Plastics  
Attn: Tony Vulpitta  
511 Hay Street  
Mt. Airy, NC 27030

Dear Mr. Vulpitta,

Tile Council of North America has tested the samples you submitted. Test report TCNA-278-15 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



# PRODUCT TESTING SERVICE

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TCNA TEST REPORT NUMBER: TCNA-278-15 #2

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TEST REQUESTED BY: dB Sound Control, Division of United Plastics

TEST SUBJECT MATERIAL: Identified by client as: "dB4"

TEST DATE: July 17, 2015

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 were used for the preparation of the testing pad.

Material Description			
Item #	Product name and size	Product Codes	Provided By:
1	Concrete base with a smooth finish Nominal Size: 48" x 48" x 2" (1219 mm x 1219 mm x 51 mm)	N/A	TCNA
2	Laticrete 253 Gold thin-set	0253-0050-22	dB Sound Control
3	dB4	Not Provided	dB Sound Control
4	12" x 12" Daltile porcelain tiles	ORO TA01	dB Sound Control
5	Laticrete Permacolor Select grout	2678-1001-2	dB Sound Control

## TYPE OF INSTALLATION:

All the materials used were specified by the client and the tested assembly was built per the client's instructions.

The system consisted of a concrete subfloor with underlayment, and with porcelain tile. Further details about the installation are provided below.

### Base and Underlayment:

The installation of the underlayment was performed by a TCNA representative. The installation procedures are outlined below.

A 48" x 48" x 2" concrete base was prepared and cured for more than 28 days prior to use.

Laticrete 253 Gold thin-set mortar, mixed per manufacturer's instructions (mix ratio 22.9:100 by weight), was troweled over the concrete with a 3/32" V-notched trowel. The thin-set first keyed in with the flat side of the trowel then combed with the notched side to form parallel ridges. The dB4 sound control membrane was cut to 48" x 48" and laid in the thin-set. Once in place the mat was rolled with a 35 pound roller.

Katelyn Simpson  
Laboratory Manager

9/10/15  
Date



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### *Tile preparation:*

The tiles were nominal size 12" x 12" and were installed in full pieces in the wheel path of the Robinson floor tester.

### *Tile and Grout:*

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

Laticrete 253 thin-set mortar, mixed per manufacturer's instructions (mix ratio 22.9:100 by weight), was troweled over the underlayment with a 1/4"x 3/8" square-notched trowel. The thin-set first keyed in with the flat side of the trowel then combed with the notched side to form parallel ridges. The 12" x 12" Daltile porcelain tiles were back buttered with a skim coat before setting. Once set, the tiles were allowed to cure for 24 hours before grouting.

Laticrete Permacolor Select grout, mixed per manufacturer's instructions (mix ratio 16.7:100), 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 29 days.

### **TEST RESULTS:**

The installation completed five cycles with no evidence of damage to the tiles or grout joints. At the completion of cycle six (hard rubber wheels, two hundred pounds per wheel), there were eight broken tiles and one spalled grout joint. 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 2015 *TCNA Handbook for Ceramic, Glass, and Stone Tile Installation* (page 40), the test pad reached the "RESIDENTIAL" classification.

Katelyn Simpson  
Laboratory Manager

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Date

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Appendix: Photos

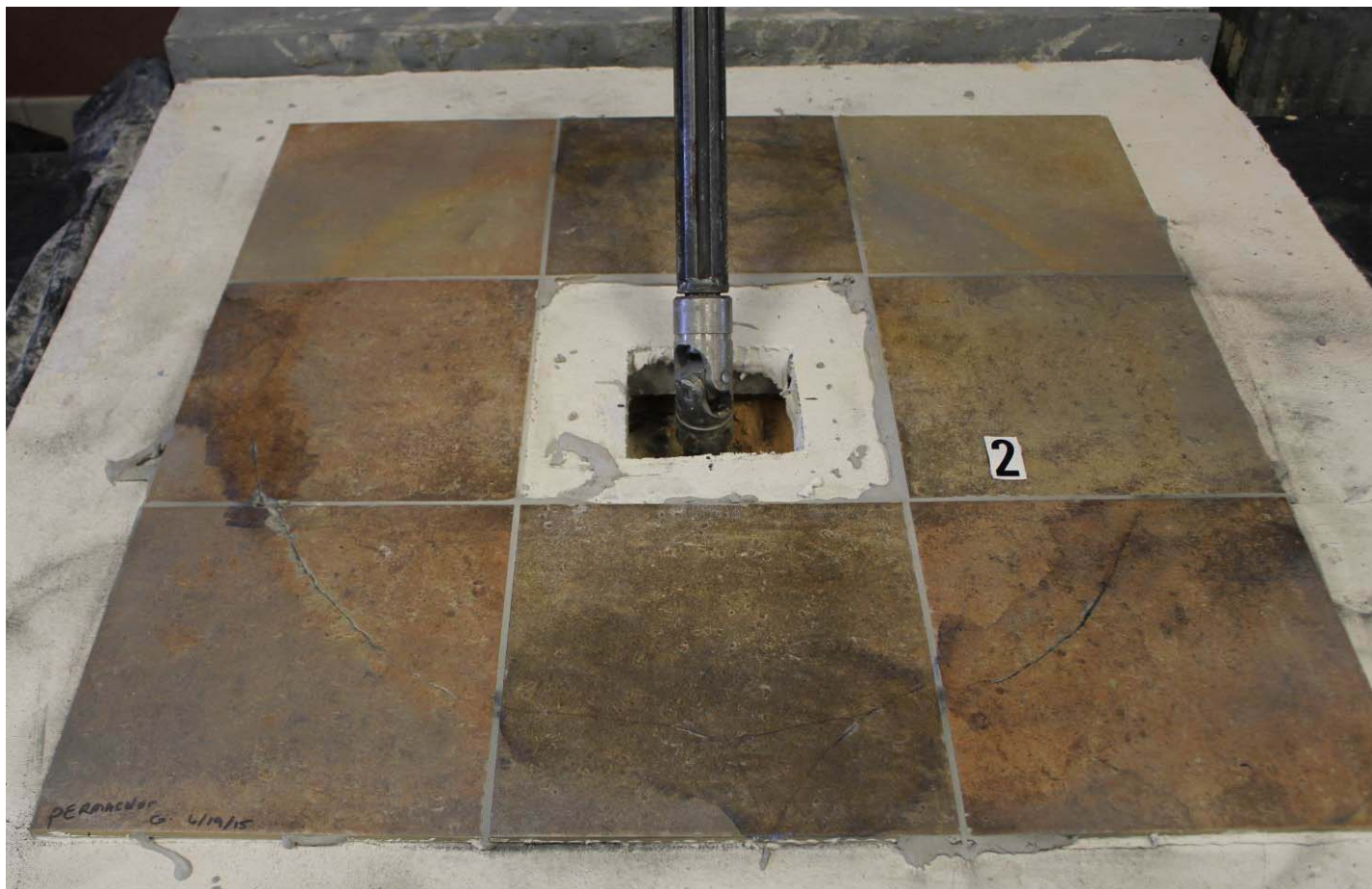
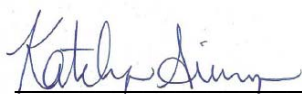


Image 1: Full assembly after testing




Katelyn Simpson  
Laboratory Manager

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**Image 2:** Broken tiles




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Laboratory Manager

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Image 3: Broken tiles

A handwritten signature in cursive script, appearing to read "Katelyn Simpson".


Katelyn Simpson  
Laboratory Manager

9/10/15  
Date





**Image 4:** Broken tile and spalled grout joint



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