



# Acoustical Surfaces, Inc.

SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS

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We Identify and **S.T.O.P.** Your Noise Problems



Tile Council of America, Inc.

100 Clemson Research Blvd.

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

## PRODUCT TESTING SERVICE

TCA TEST REPORT NUMBER: TCA-146-01

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**Rendered by Manufacturer and Released to:** Acoustical Surfaces Inc.  
123 Columbia Court North, Suite 201  
Chaska, MN 55318

**TEST SUBJECT MATERIAL** Quiet Floor™ Ceramic Underlayment

**TEST DATE:** 8/28/01-8/30/01

**TEST PROCEDURE:** ASTM C 627 "A Standard Test Method for Evaluation Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester"

### *Materials:*

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

- 1) A 42" x 42" concrete base with a broom finish
- 2) Bostik Hydroment Single Flex Mortar (Multipurpose Latex Modified High Performance Mortar); White
- 3) Quiet Floor™ Ceramic Underlayment
- 4) 12" x 12" Florida Tile (New White)
- 5) Bostik Hydroment Joint Filler (sanded) with Multipurpose Acrylic (Mortar Admixture and Grout Additive)

### *Base and Underlayment:*

Thin-set mortar was troweled over the concrete base with a 1/4 x 1/4 square-notched trowel. A 42" x 42" sheet of Quiet Floor™ ceramic tile underlayment was placed over the troweled mortar. The underlayment was rolled with a 100-pound roller to eliminate void space between the padding and the concrete base.

Testing Services: [testing@tileusa.com](mailto:testing@tileusa.com)

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### *Tile and Grout:*

Thin-set mortar was troweled over the Quiet Floor™ with a 1/4" by 3/8" square-notched trowel. The mortar was first keyed in with the flat side of the trowel and then combed with the notched side to form parallel ridges. The glazed paver tiles were set in the mortar by pressing down and sliding the tile in a direction perpendicular to the combed ridges (NTCA recommended method for bonding large size tile). A beat-in block and rubber mallet were used to reduce lippage between tiles. After the tiles were installed, the system was allowed to cure for 24 hours before grouting.

Sanded grout, mixed with acrylic admix, was forced into the tile 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 cleaned with a sponge and water per manufacturer's recommendations. The grouted installation was subsequently allowed to cure for 28 days.

At the end of the cure period, the installation was subjected to cycling as defined in ASTM C627.

### TEST RESULTS

The installation completed six cycles with no evidence of damage to the tile or grout joints. At the completion of cycle seven (hard rubber wheels, three hundred pounds per wheel), four tiles were broken, two grout joints were cracked, and two grout joints were powdered. At this point, the damage constituted failure of the installation according to the evaluation criteria of ASTM C627.\*

\*All evaluation criteria were based on 8 tile 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 2001 handbook for Ceramic Tile Installation, the installation is rated as "Light" for "light commercial use in office space, reception areas, kitchens, and bathrooms."

TEST SUBMITTED BY:

Noah Chitty  
Laboratory Manager

9/4/01

Date