

TCA TEST REPORT NUMBER: TCA-045-04

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**TEST REQUESTED BY:** Amorim Industrial Solutions  
Attn: Larry Lyons  
P.O. Box 25  
Trevor, WI 53179

**TEST SUBJECT MATERIAL:** Identified by client as: AcoustiCork AC 55 Plus

**TEST DATE:** 6/1/04-6/3/04

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

*Materials:*

A sound isolation installation over a concrete base was prepared using the following materials:

- 1) A 42" x 42" concrete base with a broom finish
- 2) ½" AcoustiCork AC 55 Plus
- 3) 4 mil poly cleavage membrane
- 4) 1 ¼" wet-set reinforced mortar bed; ANSI A108.1a
- 5) Hydroment Tilemate Floor-n-Wall thinset mortar
- 6) 12 x 12 glazed clay-bodied tile with an average breaking strength of 275-lbf.
- 7) Hydroment tile grout (sanded) with Hydroment 425 Multipurpose Acrylic Latex admix

*Base and Underlayment:*

A 42" x 42" sheet (divided into two 21" x 36" pieces and one 6" x 36" piece) of ½" AcoustiCork AC 55 Plus was placed over the concrete base. The seams were taped with 2" fiberglass mesh tape. A sheet of 4 mil poly was placed over the cork. An ANSI A108.1a 1-¼" Wet-Set reinforced mortar bed was installed over the membrane.

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*Tile and Grout:*

After one hour, multipurpose mortar was troweled over the underlayment with a 1/4" by 3/8" U- notched trowel—first keying in the mortar with the flat side of the trowel and then combing the mortar with the notched side to form parallel ridges. Glazed paver tiles were set in the thin-set by pressing down and sliding the tile in a direction perpendicular to the combed ridges (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 thin-set was allowed to cure for 24 hours before grouting.

Sanded grout, mixed with admixture, 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 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 at least 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 fourteen cycles with no evidence of damage to the tile or grout joints. \*

\*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 2003-2004 Handbook for Ceramic Tile Installation, the installation is rated as "EXTRA HEAVY" for "extra heavy and high-impact use in food plants, dairies, breweries, and kitchens".

**TEST SUBMITTED BY:**  
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Noah Chitty

Laboratory Manager

  
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Date