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TILE INSTITUTE of AMERICA

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December 29, 1994
Revised July 1, 1998
Client: 40970.8

Mr. Bob Galganski
BADGER CORK
26112 110th Street
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Subject: **Floor System Performance Level** as evaluated in compliance to ASTM C 627-88, Standard Method for EVALUATING CERAMIC FLOOR TILE INSTALLATION SYSTEMS USING THE ROBINSON-TYPE FLOOR TESTER.

Floor Performance Rating Criteria:

RESIDENTIAL: System shall pass cycles 1 through 3, (900 revolutions each).
LIGHT COMMERCIAL: System shall pass cycles 1 through 6, (900 revolutions each).
MODERATE: System shall pass cycles 1 through 10, (900 revolutions for 1-8 each, 450 revolutions for cycles 9 & 10 each).
HEAVY COMMERCIAL: System shall pass cycles 1 through 12, (900 revolutions for 1-8 each, 450 revolutions for cycles 9-12 each).
EXTRA HEAVY COMMERCIAL: System shall pass cycles 1 through 14, (900 revolutions for 1-8 each, 450 revolutions for cycles 9-14 each).

Construction configuration:

Tile - 8 x 8 x 1/2 inch unglazed Quarry tile, square edged.

Grout - Commercially prepared Portland Cement sanded Colored Grout with latex.

Bond Coat - "Latex Modified" commercially prepared Portland Cement Mortar conforming to ANSI A 118.4.

Sound Control Underlayment: 6mm AcoustiCORK®

Underlayment by Badger Cork

Bond Coat - Organic Adhesive conforming to ANSI A136.1 Type I

Light Weight Floor Underlayment- GYP-CRETE 2000® 115 pcf, 1.4 mix,
2,000 psi, 1 1/2 inches thick

Wood subfloor - 5/8 inch thick standard grade plywood nailed 4+1/2 inch on center to 4 two inch wide floor joists 16 inch on center.

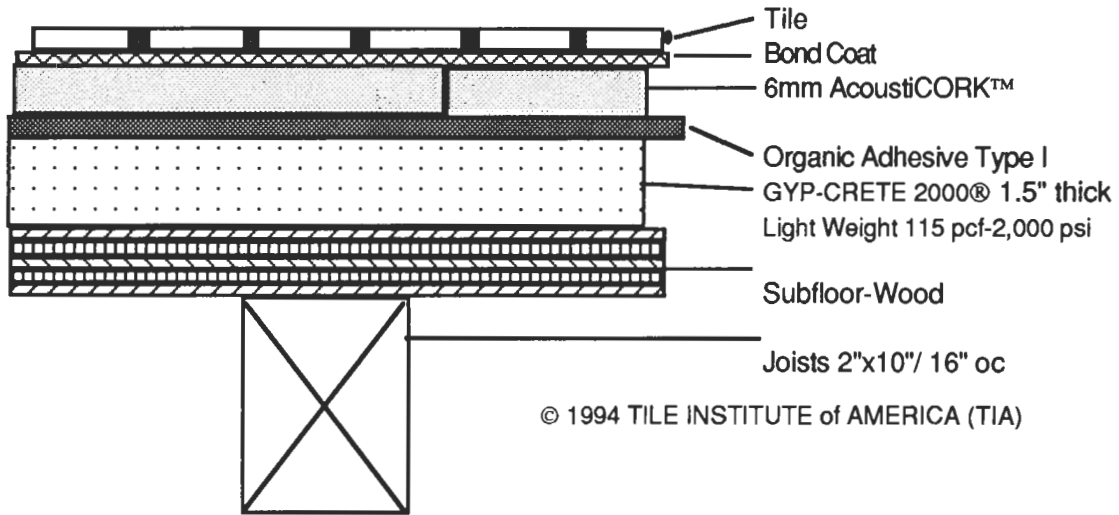
Joists 2" X 10" / 16 inches on center

Procedure:

The floor system was constructed on the Robinson Floor Tester and cured for not less than 28 days according to the standards. The number of tile and grout joints were counted that were under the wheel wear test pattern. The deflection measurements were made at center span between the joists under the wheel path. Dial number one reports under the tile and the dial number 2 reports the deflection measurements under the plywood subfloor. The dial indicators were set on 0.000 prior to the first revolution. The tiled surface was examined before, during and after each cycle and recorded as indicated in the attached test results.

Sound-Rated Tile Floor System # 40970.8

6mm AcoustiCORK™ by Badger Cork



Summary of Test Results:

Floor Performance Rating...**Residential**

Number of cycles Passed...3

Number of Tile under wheel path...12

Number of grout joints under wheel path...12

TEST CYCLE	WGT. lbs	Wheel Type	Rev.	Chip Tile	Broke Tile	Loose Tile	PopUp Grt.Jt	Crack Grt.Jt	Powdr Grt.Jt	Deflections Dial#1	Dial#2
1	100	SR	900	00	00	00	00	00	00	0.008	0.000
2	200	SR	900	00	00	00	00	00	00	0.019	0.000
3	300	SR	900	00	00	00	00	00	00	0.025	0.002
4 *	300	SR	57	03	00	01	02	01	01	0.035	0.003

* System failed at Revolution...57 in Cycle number...4

Note Limitation: Chipped, loosen tile, popped, cracked and powdered grout.

Laboratory Test by:

Gerald M. Halweg, CTC, CSI, TTA. (President)