

REPORT OF TEST

ARTO BRICK/CALIFORNIA
15209 South Broadway Street
Gardena, CA 90248
Attn: William Love

STATIC COEFFICIENT OF FRICTION
ON
TWO SAMPLES OF UNSEALED CONCRETE TILE

REPORT DATE: May 13, 2008
TESTING DATE: May 12, 2008

Testing Place: Twining Laboratories

TWINING LABORATORIES OF SOUTHERN CALIFORNIA, INC.

TEST REPORT NO. 08-9043


MIKE FATTAL
SPECIAL TESTING ENGINEER
SPECIAL PRODUCT TESTING DIVISION

May 13, 2008

TLSC Project # 080367.1

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SCOPE OF TESTING

Determining the Static Coefficient of Friction as means to evaluate the slip resistance of two types of un-installed sandstone as per client's request.

SPECIMEN IDENTIFICATION

Tested samples in this report were Identified as:

"ROMAN TILE"	[12" X 12"] (UNSEALED)
"ARTILLO TILE"	[12" X 12"] (UNSEALED)

REFERENCES

ASTM STANDARDS

Designation: C 1028-07, Standard test method for Evaluating The Static Coefficient of Friction of Ceramic Tiles and Other Like Surfaces By The Horizontal Dynamometer Pull Meter Method.

TEST EQUIPMENT

TESTING ASSEMBLY:

- 8" x 8" Wood Block 3/4" thick.
- Neolite heel material (Standard Neolite Cement Liner), 3" x 3" by 3/16" thick, attached at the center of the wood block.

FORCE METER:

- Digital force Gauge, Horizontal, chatillon, Model DFG Push/Pull.

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OTHER MATERIALS:

- Distilled Water
- Silicon Carbide Paper, wet or dry 400-A grit.
- Weight, 50 lbs.
- Rags.

TEST PROCEDURE

Test Apparatus was built in reference to ASTM Standards C-1028-07
The Apparatus was placed on tested stone sample with 50 lbs. of weight on top of it.

A dynamometer was used to measure the highest force reading in pounds required to start moving the test assembly parallel to the building stone surface by performing four pulls perpendicular to the previous pull.

The Neolite Heel test Assembly surface was calibrated both in dry and wet conditions with the Standard Tile obtained from the Ceramic Tile Institute.

Testing was performed at Twining Laboratories of So. CA on three samples of each stone type, average of the final readings were reported for each type.

Calibration Factors: [Dry Condition -0.04, wet condition -0.02]

Testing was performed in the following sequences:

A. "AS RECEIVED CONDITIONS" -- Dry.

B. "AS RECEIVED CONDITIONS" -- Wet.

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TEST RESULTS
ASTM C 1028-07

"ROMAN TILE"

[12" X 12"] (UNSEALED)

DRY NEOLITE	APPLIED PULLING FORCE (LBS).	C. O. FRICTION
1st reading	36	0.68
2nd reading	35	0.66
3rd reading	37	0.70
4th reading	36	0.68

AVERAGE 0.68

WET NEOLITE	APPLIED PULLING FORCE (LBS).	C. O. FRICTION
1st reading	34	0.66
2nd reading	33	0.64
3rd reading	34	0.66
4th reading	34	0.66

AVERAGE 0.66

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TEST RESULTS
ASTM C 1028-07

"ARTILLO TILE" [12" X 12"] (UNSEALED)

DRY NEOLITE	APPLIED PULLING FORCE (LBS).	C. O. FRICTION
1st reading	38	0.74
2nd reading	39	0.76
3rd reading	38	0.74
4th reading	34	0.64
		AVERAGE 0.72

WET NEOLITE	APPLIED PULLING FORCE (LBS).	C. O. FRICTION
1st reading	35	0.68
2nd reading	35	0.68
3rd reading	34	0.66
4th reading	36	0.70
		AVERAGE 0.68

CLARIFICATIONS

Test results shown in this report, only represents the conditions of tested samples at the time of testing.

Twining Labs. is not responsible for varying conditions.

*** Required Numbers for flat surfaces (dry & wet) is 0.60 or better**