



# SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory, Established 1904

781 E. Washington Boulevard Los Angeles, California 90021 ♦ (213) 749-3411 ♦ Fax (213) 741-8626

Proj. No.: 31907-1  
Lab No.: T-02-054

April 2, 2002

Client : **GRANADA TILE**  
1109 West Kensington Road,  
Los Angeles, CA 90026  
Attn : Melanie Stephens

Subject: **8" x 8" x 5/8" thick (Colored) Concrete Tiles**  
Specification: ASTM C 1028-96  
Source: Submitted to Laboratory by Client.

## STATIC COEFFICIENT OF FRICTION (ASTM C 1028-96)

A block of wood with a 3" x 3" x 1/8" section of standard neolite sole liner attached, was placed on the surface to be tested; on top of this assembly, a 50 pound (22kg) weight was placed. Using dynamometer, the force in pounds required to cause the test assembly to slip parallel to the test surface was measured. Four measurements were taken on each of three test surfaces, each measurement perpendicular to the previous one. The twelve measurements were averaged to obtain the coefficient of friction for each test condition.

### A. As Received:

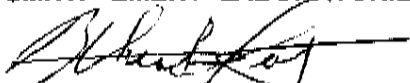
Test Condition	Tile No.	N	E	S	W	Average	Individual	S.C.O.F
							Coefficient of Friction (fc)	After Neolite Correction Factor
Dry Neolite	1	42	43	42	43	43.08	0.84	(0.81)
	2	44	43	42	44			
	3	44	44	43	43			
Wet Neolite	1	45	46	45	45	45.17	0.88	(0.83)
	2	47	46	46	44			
	3	45	43	45	45			

### B. After Cleaning with Hilliards Renovator. (ASTM C 1028 Standard Cleaner)

Dry Neolite	1	45	45	46	45	45.08	0.88	(0.85)
	2	45	46	44	44			
	3	46	44	45	46			
Wet Neolite	1	42	43	42	42	42.17	0.82	(0.77)
	2	42	42	43	42			
	3	43	42	42	41			

Respectfully Submitted,

**SMITH - EMERY LABORATORIES**

  
Robert Theodore Peet

Registered Civil Engineer No.: 62632

Registration Expires: 6-30-02

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Proj. No.: 31907-1  
Lab No.: T-08-142

July 8, 2008

Client: MELANIE STEPHENS  
**GRANADA TILES**  
1109 W. KENSINGTON ROAD  
LOS ANGELES, CA 90026

Subject: **8" x 8" x 5/8" Thick Smooth Finish Brick Red Concrete Tiles**  
Specification: ASTM C 1353-96 (Adapted Method for ASTM C 241)  
Source: Delivered by Client on June 27, 2008 to Smith Emery Laboratories

### Report of Tests

#### ABRASION RESISTANCE TEST (ASTM C 1353-96)

Prepared samples were weighed prior to testing, then placed on spindle of a Tabor Abrading Machine equipped with H-22 Calibrade Wheels, with 1,000 grams load applied to each wheel. At this condition, it is subjected to 1,000 cycles or revolution, then immediately reweighed.

Sample No.	Initial Wt. (grams)	Final Wt. After 1000 Rev. (grams)	Bulk Specific Gravity	Abrasive Wear Index
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1.	309.25	305.40	2.09	19.92
2.	333.61	330.78	2.08	27.01

Average : **23.5**

Sample No.	Dry Wt. (grams)	Wet Wt. (grams)	Suspended Wt. in Water, grams	Specific Gravity
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1.	298.10	325.54	182.69	2.087
2.	324.84	356.06	199.83	2.080

**2.084**

Average :

Requirements : ASTM C 568 - for Limestone

ASTM C 616 - for Quartz

Minimum Abrasion Resistance -

2 Class I Sandstone

8 Class II Quartzitic Sandstone

8 Class III Quartzite

Respectfully Submitted,

SMITH - EMERY LABORATORIES

P. John Latiolait  
Registered Civil Engineer No. C60312  
Registration Expires: 06-30-08

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CC:SMITH-EMERY LABORATORIES; GRANADA TILES



- The materials tested comply with specifications.  
 The materials tested did not comply with specifications.  
 No established criteria for acceptable limits.



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Proj./Job No.: 31907-1

Lab. No.: L-08-183

September 23, 2008

Client: **GRANADA TILES**  
1109 W. Kensington Road  
Los Angeles, CA 90026  
Attn: Melanie Stephens

Subject: **8" x 8" x 5/8" Thick Decorative Cement Tile**  
Test Procedure: ASTM C 642-07: Test Method for Density, Absorption, and Voids in Hardened Concrete  
Source: Sample Submitted by the Client to the Laboratory on August 15, 2008  
Date Tested: August 21, 2008

## Report of Test

### Absorption Test

Specimens were oven dried in a temperature of 110°C for not less than 24 hours. Then let it cool in dry air and the mass were determined. Samples were immersed in water at approximately 21°C for not less than 48 hours. Surface-dried the specimen and the surface-dry mass after immersion (B) were determined. It was placed it in a container with water and boiled for 5 hours, allowed to cool by natural loss of heat for not less than 14 hours to the final temperature of 20 to 25°C. The surface moisture was removed with a towel and determined the mass, as soaked, boiled and surface-dried (C). Then the specimen was suspended in water and the mass in water (D) was determined.

Sample Number	Weight of Sample, Gram				Absorption, %	
	(A) Dry	(B) SSD Imrs.	(C) SSD Boiled	(D) In Water	After Immersion	After Imrs & Boiling
1	1253.0	1373.6	1387.2	791.2	9.6	10.7
2	1257.0	1373.0	1384.5	791.5	9.2	10.1
3	1253.3	1371.8	1380.9	787.8	9.5	10.2
4	1242.6	1355.0	1366.3	780.6	9.0	10.0
5	1225.0	1343.6	1358.8	772.2	9.7	10.9
<b>Average</b>					<b>9.4</b>	<b>10.4</b>

Respectfully Submitted,

SMITH-EMERY LABORATORIES

V. Andrew Tan  
Registered Civil Engineer No.: C64265  
Registration Expires: 6-30-09

/s/



- Materials Tested Comply With Specifications.  
 Materials Tested Did Not Comply With Specifications.  
 No Established Criteria for Acceptable Limits.  
 For Information Only