



SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory

781 E. Washington Boulevard - 2nd Floor Los Angeles, California 90021 ♦ (213) 745-5333 ♦ Fax (213) 749-7232

Proj. No.: 36415-1
Lab No.: T-09-150

September 25, 2009
Page 1 of 2

Client : **STONE & PEWTER ACCENTS**
3555 LOMITA BLVD., UNIT H & J
TORRANCE, CA 90505
Attn : Neil Katz

Subject : **Old Fashioned 4" x 4" Glass (Mosaic Tile) Transparent Glass; Hawaiian Blue Pearl Color**
Specification : ASTM C 1026 - 96
Source : Submitted to Laboratory by Client.

Report of Test

Measuring The Resistance of Ceramic Tile to Freeze - Thaw Cycling (ASTM C 1026 - 96)

Ten tile samples were placed in a vacuum chamber and subjected to a maximum vacuum pressure of 1.45 psi. (29 in Hg) for 20 minutes, then covered with water for additional 40 minutes under the same vacuum condition. After removal from the chamber, the samples were subjected to fifteen cycles of freezing to 0° F and thawing to 50° F to 60° F water. After each cycle the specimens were wiped surface dry and observed for surface flaws, then reimmersed in water until ready for the next freezing cycle. Every fifth cycle the tile were weighed and inked to enhance surface flaws.

A. Absorption

Tile No.	Dry Wt. (grams)	Wet Wt. (grams)	Percent Water Absorption After Vacuum
1.	227.81	227.81	0.000%
2.	195.27	195.27	0.000%
3.	217.51	217.51	0.000%
4.	201.69	201.69	0.000%
5.	201.30	201.30	0.000%
6.	214.56	214.56	0.000%
7.	202.73	202.73	0.000%
8.	214.24	214.24	0.000%
9.	209.30	209.30	0.000%
10.	195.83	195.83	0.000%

B. Freeze - Thaw Cycling

Cycle No.	OBSERVATIONS									
	Tile 1	Tile 2	Tile 3	Tile 4	Tile 5	Tile 6	Tile 7	Tile 8	Tile 9	Tile 10
1.	U	U	U	U	U	U	U	U	U	U
2.	U	U	U	U	U	U	U	U	U	U
3.	U	U	U	U	U	U	U	U	U	U
4.	U	U	U	U	U	U	U	U	U	U
5.	U	U	U	U	U	U	U	U	U	U
Wet Wt.	227.81	195.27	217.51	201.69	201.3	214.56	202.73	214.24	209.3	195.83
% Abs.	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%



SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory

781 E. Washington Boulevard - 2nd Floor Los Angeles, California 90021 ♦ (213) 745-5333 ♦ Fax (213) 749-7232

Proj. No.: 36415-1
Lab No.: T-09-150

September 25, 2009
Page 2 of 2

Subject: Old Fashioned 4" x 4" Glass (Mosaic Tile) Transparent Glass; Hawaiian Blue Pearl Color

B. Freeze - Thaw Cycling cont'd.

Cycle No.	OBSERVATIONS									
	Tile 1	Tile 2	Tile 3	Tile 4	Tile 5	Tile 6	Tile 7	Tile 8	Tile 9	Tile 10
6.	U	U	U	U	U	U	U	U	U	U
7.	U	U	U	U	U	U	U	U	U	U
8.	U	U	U	U	U	U	U	U	U	U
9.	U	U	U	U	U	U	U	U	U	U
10.	U	U	U	U	U	U	U	U	U	U
Wet Wt.	227.81	195.27	217.51	201.69	201.3	214.56	202.73	214.24	209.3	195.83
% Abs.	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

Cycle No.	OBSERVATIONS									
	Tile 1	Tile 2	Tile 3	Tile 4	Tile 5	Tile 6	Tile 7	Tile 8	Tile 9	Tile 10
11.	U	U	U	U	U	U	U	U	U	U
12.	U	U	U	U	U	U	U	U	U	U
13.	U	U	U	U	U	U	U	U	U	U
14.	U	U	U	U	U	U	U	U	U	U
15.	U	U	U	U	U	U	U	U	U	U
Wet Wt.	227.81	195.27	217.51	201.69	201.3	214.56	202.73	214.24	209.3	195.83
% Abs.	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

Legend : (U) Unaffected - No crazing, chipping spalling, body checks or cracks.
(A) Affected - (a) Crazing, (b) Chipping, (c) Spalling, (d) Body Checks, (e) Cracks.

Remarks: Tested samples shows no evidence of deterioration after 15 cycles of freezing and thawing

Respectfully Submitted,

SMITH - EMERY LABORATORIES

G. Janeth Quintero
Registered Civil Engineer No.: C73066
Registration Expires 12-31-10



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

rc



SMITH-EMERY LABORATORIES

An Independent Commercial Testing Laboratory

781 E. Washington Boulevard - 2nd Floor Los Angeles, California 90021 ♦ (213) 745-5333 ♦ Fax (213) 749-7232

Proj. No : 36415-1
Lab No.: T-09-150

September 25, 2009

Client : **STONE & PEWTER ACCENTS**
3555 LOMITA BLVD., UNIT H & J
TORRANCE, CA 90505
Attn : Neil Katz

Subject : **Old Fashioned 4" x 4" Glass (Mosaic Tile) Transparent Glass; Hawaiian Blue Pearl Color**
Specification: ASTM C 648
Source: Submitted to Laboratory by Client.

Report of Test

BREAKING STRENGTH (ASTM C 648)

The tile samples were placed on a test fixture having three (3) supports located in a circle three and fifteen-thirty-secondths (3-15/32) inches in diameter with the load applied at the center as per specifications. *Results are as follows.*

<u>Sample Number</u>	<u>Breaking Load (Lbs.)</u>
1.	356
2.	804
3.	428
4.	585
5.	1059
6.	779
7.	393
8.	693
9.	406
10.	743

Average: 625

Requirements: ANSI A 137.1 (General) Breaking Strength. When tested as described in ASTM C-648, the average breaking strength shall be 250 pounds or greater.

Respectfully Submitted,

SMITH - EMERY LABORATORIES

G. Janeth Quintero
Registered Civil Engineer No.: C 73066
Registration Expires : 12-31-10



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

rc