



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.: 40531-1

February 17, 2012

Lab No.: T-12-004

Client: GREG HEYDENREICH
TERRATILE
239 CALLE CAMPESINO
SAN CLEMENTE, CA 92672

Subject: 11-3/4" x 11-3/4" x 7/16" Thick Terratile, Red
Test Method: ASTM C 501-84(2002) - Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile Test Method: by the Taber Abraser.
Specification: ANSI A 137.1 - 88
Source: Submitted to Smith-Emery Laboratories by Client on January 9, 2012.

REPORT OF TEST

ABRASIVE RESISTANCE TEST (ASTM C 501)

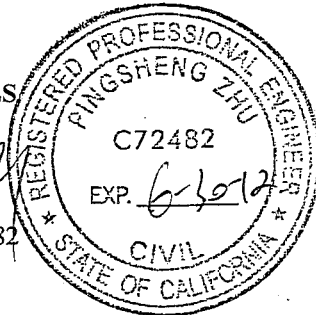
Samples were cut to 4" x 4" size and drilled a 1/4" hole on center, then were conditioned in a controlled chamber at 70° F and 50 % Relative Humidity for a minimum of 24 hours, then weighed prior to testing. Prepared samples were placed on spindle of a Tabor Abrading Machine equipped with H-22 Calibrate Wheels, with 1,000 grams load applied to each wheel. At this condition, it is subjected to 1000 cycles revolution, then immediately reweighed.

Sample No.	Initial Wt. (grams)	Final Wt. After 1000 Rev. (grams)	Abrasive Wear Index
1.	250.750	249.850	98
2.	249.030	248.100	95
3.	252.050	251.180	101
4.	253.000	252.130	101
Average:			99

Requirements: ANSI A 137.1 (for Unglazed Paver Tile) - When tested as described in ASTM C 501, the porcelain type paver tile in the sample shall have an abrasive hardness index of 100 or greater and the natural clay type paver tile an index of 50 or greater.

Respectfully Submitted,
SMITH-EMERY LABORATORIES

Pingsheng Zhu
Registered Civil Engineer No.: C72482
Registration Expires: 06-30-12



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

Cc: TERRATILE; SMITH-EMERY LABORATORIES

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Subject: 11-3/4" x 11-3/4" x 7/16" Thick Terratile, Red
Specification: As agreed with client; ASTM C773 "Standard Test Method for Compressive (Crushing) Strength of Fired Whiteware Materials" as a referenced guide.
Source: Submitted to Smith-Emery Laboratories by Client on January 9, 2012.

REPORT OF TEST

COMPRESSIVE STRENGTH TEST

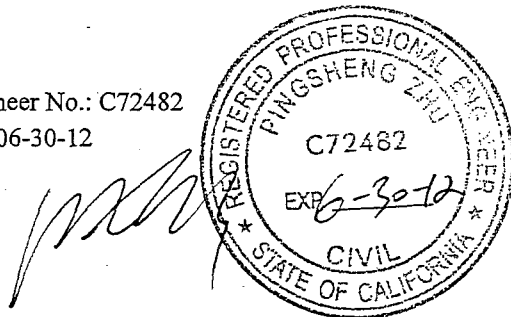
Samples were cut using diamond abrasive wet saw, with the length and width dimension as close as possible to 1-inch x 1-inch x thickness; then it was conditioned in an oven at 300 °F; for not less than 24 hours prior to testing. Test results are as follows:

Sample No.	Thickness (in.)	Side 1 (in.)	Side 2 (in.)	Area sq.in.	Maximum Load, lbs.	Compressive Strength, PSI	Average PSI
1.	0.401	1.035	1.000	1.04	36,500	35,096	40,099
2.	0.397	1.031	1.000	1.03	42,401	41,166	
3.	0.400	1.026	1.001	1.03	43,945	42,665	
4.	0.397	1.018	1.001	1.02	42,486	41,653	
5.	0.400	1.033	1.015	1.05	41,912	39,916	

Respectfully Submitted,
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Pingsheng Zhu
Registered Civil Engineer No.: C72482
Registration Expires: 06-30-12

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