



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

Project/Job No : 35562-1
Laboratory No : T-06-149

August 22, 2006

Client : GREG FILLO
BEDROSIANS
1123 E WARNER AVENUE
TUSTIN, CA 92780

Subject: TCR LIM 33W - 13" x 13" x 5/16" Thick Field Tile - Walnut Porcelain Tile Made in China)
Specification: ASTM C 1028-96
Source: Submitted to Smith-Emery Laboratories by Client on July 17, 2006

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	44	44	45	44	44.17	(0.86)	0.68
	2	45	44	44	43			
	3	44	45	44	44			
Wet Neolite	1	31	32	31	31	31.33	(0.61)	0.56
	2	32	31	31	31			
	3	31	32	31	32			

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

Dry Neolite	1	45	44	44	44	44.42	(0.87)	0.69
	2	44	45	45	44			
	3	45	44	44	45			
Wet Neolite	1	31	30	31	30	30.50	(0.60)	0.55
	2	30	30	31	31			
	3	31	31	30	30			

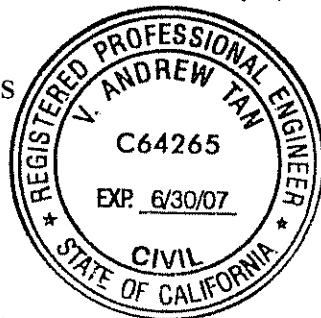
Specification: Department of Justice ADA Title III Regulation 28 CFR Part 36, Section A4.5.1; Recommends minimum of 0.60 SCOF for horizontal surfaces and 0.80 SCOF on ramps

Respectfully Submitted,
SMITH - EMERY LABORATORIES

V Andrew Tan
Registered Civil Engineer No : C64265
Registration Expires: 06-30-07

mc

Cc: BEDROSIANS: SMITH-EMERY LABORATORIES



- Materials Tested Comply With Specifications.
- Horizontal; Ramps or Incline
- Materials Tested Did Not Comply With Specifications.
- No Established Criteria for Acceptable Limits.
- For Information Only.



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Subject: TCR LIM 33W - 13" x 13" 5/16" Thick Field Tile - Walnut Porcelain Tile (Made in China); Order No. 96003490801
Specification: ASTM C 373
Source: Submitted to Smith-Emery Laboratories by Client on July 17, 2006.

REPORT OF TEST

Water Absorption Test (ASTM C 373)

Samples were dried to a constant weight in an oven at 150 °C, then cooled and weighed. Then were immersed in distilled water (boiling vigorously for 5 hours before cooling gradually to a total elapsed time of 29 hours). Samples were removed from water, wiped dry and immediately reweighed

Sample No.	Dry Wt. (grams)	Wet Wt. (grams)	Percent Water Absorption	Average
1	484.99	496.64	2.40%	
2	485.34	489.45	0.85%	
3	476.98	488.60	2.44%	<u>1.94%</u>
4	480.05	483.60	0.74%	
5	484.30	500.05	3.25%	

Requirements:

ANSI A 137.1 (General) - When tested as described in ASTM C 373, the tile in the sample shall be impervious for porcelain paver tile and shall be impervious, vitreous or semi-vitreous for natural clay paver tile

Impervious Tile (0.5% or less Wtr. Abs.)

Vitreous Tile (0.5%-3.0% Wtr. Abs.)

Semi-Vitreous Tile (3.0%-7.0% Wtr. Abs.)

Unglazed Quarry Tile (Max. 5.0% Wtr. Abs.)

Remarks: Sample tested comply with the Vitreous requirement.

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

Co: BEDROSIANS, SMITH-EMERY LABORATORIES



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Subject: TCR LI 33W - 13" x 13" x 5/16" Field Tile - Walnut Porcelain Tile (Made in China); Order No. 960090801
Specification: ASTM C-650 (Qualitative Observation Only)
Source: Submitted to Smith-Emery Laboratories by Client on July 17, 2006.

REPORT OF TEST

CHEMICAL RESISTANCE OF CERAMIC TILE (ASTM C 650)

Exposure time : 24 hours

Room temperature : 75.5 °F

<u>Tile Number</u>	<u>Acid 10% HCL</u>	<u>Alkali 10% KOH</u>
1.	Unaffected	Unaffected
2.	Unaffected	Unaffected
3.	Unaffected	Unaffected
4.	Unaffected	Unaffected
5.	Unaffected	Unaffected
6.	Unaffected	Unaffected

Requirements: No Requirement

Remarks: Sample Tested Shows no Physical Damage After Test.

Respectfully Submitted,

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V. Andrew Tan

Registered Civil Engineer No : C64265

Registration Expires: 06-30-07

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

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SUBJECT: TCR LIM 33W - 13" x 13" x 5/16" Thick Field Tile - Walnut Porcelain (Made in China); Order No. 96003490801
Specification : MOHS Hardness Test (MOHS Scale)
Source : Submitted to Smith-Emery Laboratories by Client on July 17, 2006.
Date Tested: 8/1/06

REPORT OF TEST

SCRATCH HARDNESS OF SURFACE (MOHS SCALE)

A sharp angular mineral starting with hardness one (1) on the MOHS Scale is drawn while applying a uniform pressure across the surface of the tile. The highest hardness number with which no scratches visible to the naked eye occur shall be taken as the result of the test.

AREA	SAMPLE NUMBER	MOHS SCALE	MINERAL EQUIVALENT
	1	7.5	Quartz / Topaz
	2	7.5	Quartz / Topaz
Top Surface Only	3	7.5	Quartz / Topaz
	4	7.5	Quartz / Topaz
	5	7.5	Quartz / Topaz

MOHS Table

Mohs #	Mineral	Mohs #	Mineral
1.0	Talc	6.0	Microcline
2.0	Selenite	7.0	Quartz
3.0	Calcite	8.0	Topaz
4.0	Fluorite	9.0	Corundum
5.0	Apatite	10.0	Diamond

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V Andrew Tan
Registered Civil Engineer No.: C64265
Registration Expires: 06-30-07



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

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