



PRODUCT TESTING SERVICE

100 Clemson Research Blvd. □ Anderson, SC 29625 □ Tel (864) 646-TILE □ Fax (864) 646-2821

TCNA TEST REPORT NUMBER:

TCNA-173-13

PAGE: 1 OF 1

TEST REQUESTED BY:

Vidrepur of America
Attn: Paul Medina
2301 NW 84th Ave.
Miami, FL 33122

TEST SUBJECT MATERIAL:

Identified by client as: **“Moon collection”**

TEST DATE:

4/17/2013 - 4/18/2013

TEST PROCEDURE:

ASTM C650: “Resistance of Ceramic Tile to Chemical Substances”

-One (1) 2" x 2" glass specimen was tested for each test solution.

-The specimens were exposed to the test solutions for 24 hrs at 74°F.

TEST RESULTS:

Test Solution	Visual Test (Affected?)	Pencil Test (Affected?)
<i>Common Household and Cleaning Chemicals</i>		
Acetic acid, 3% (v/v)	No	NA
Acetic acid, 10% (v/v)	No	NA
Ammonium chloride, 100 g/L	No	NA
Citric acid solution, 30 g/L	No	NA
Citric acid solution, 100 g/L	No	NA
Lactic acid, 5% (v/v)	No	NA
Phosphoric acid, 3% (v/v)	No	NA
Phosphoric acid, 10% (v/v)	No	NA
Sulfamic acid, 30 g/L	No	NA
Sulfamic acid, 100 g/L	No	NA
<i>Swimming Pool Chemicals</i>		
Sodium hypochlorite solution, 20 mg/L	No	NA
<i>Acids and Bases</i>		
Hydrochloric acid solution, 3% (v/v)	No	NA
Hydrochloric acid solution, 18% (v/v)	No	NA
Potassium hydroxide, 30 g/L	No	NA
Potassium hydroxide, 100 g/L	No	NA

According to ANSI A137.2, the subject tile received a **Class A** classification.

Dr. Jyothi Rangineni
Research Scientist

4/24/2013

Testing Services: testing@tileusa.com □ Literature Orders: literature@tileusa.com □ Web Site: www.tileusa.com

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4/22/2013

TEST PROCEDURE:

ASTM C1028: “Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method”

-A Chatillon DFIS 100 digital force gauge was used to measure each pull in pounds-force.

-A 3 x 3 x 1/8-inch piece of Neolite was used as the sensor.

TEST RESULTS:

The average static coefficient of friction of four (4) pulls on each tile was as follows:

	<u>As Received</u>	<u>After Cleaning</u>
<u>Tile 1</u>		
Dry	<u>0.77</u>	<u>0.77</u>
Wet	<u>0.55</u>	<u>0.55</u>
<u>Tile 2</u>		
Dry	<u>0.75</u>	<u>0.77</u>
Wet	<u>0.54</u>	<u>0.55</u>
<u>Tile 3</u>		
Dry	<u>0.75</u>	<u>0.76</u>
Wet	<u>0.55</u>	<u>0.55</u>

The average static coefficient of friction of twelve (12) pulls was as follows:

	<u>As Received</u>	<u>After Cleaning</u>
Dry	<u>0.75</u>	<u>0.76</u>
Wet	<u>0.55</u>	<u>0.55</u>

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TEST PROCEDURE:

ASTM C648: “Standard Test Method for Breaking Strength of Ceramic Tile”

-Ten (10) whole unglazed tiles were tested.
-The tiles were loaded at a rate of 1000 pounds per minute.
-A ball bearing triangular support was used to hold the tiles during loading.
-Testing was performed on an Instron Universal Tester, model #3385-H

TEST RESULTS:

The average breaking strength of ten (10) tiles was: **333 lbf.**

The individual results of breaking strength are as follows:

Specimen 1: 323 **lbf**
Specimen 2: 344 **lbf**
Specimen 3: 270 **lbf**
Specimen 4: 436 **lbf**
Specimen 5: 319 **lbf**
Specimen 6: 267 **lbf**
Specimen 7: 364 **lbf**
Specimen 8: 387 **lbf**
Specimen 9: 355 **lbf**
Specimen 10: 269 **lbf**

[The ANSI A137.2 Specification for Glass Tile states that the average breaking strength shall be 250 lbf or greater for fused or low temperature mosaic glass tile or 350 lbf or greater for cast mosaic glass tile.]

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