

SOLAR REFLECTANCE AND THERMAL EMITTANCE MEASUREMENTS  
ON  
"TERRATILE MISSION TERRACOTTA"

REPORT OF TESTS PURSUANT TO:  
ASTM C1549 FOR SOLAR REFLECTANCE, ASTM C1371 FOR EMITTANCE  
AND ASTM E1980 FOR SOLAR REFLECTANCE INDEX (SRI) CALCULATIONS

TEST REPORT NO: RIO-2293-11  
ISSUED: NOVEMBER 4, 2011

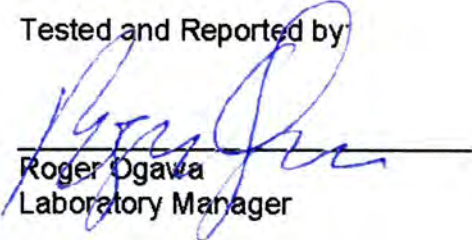
PREPARED FOR

TERRATILE  
239 CALLE CAMPESINO  
SAN CLEMENTE, CA 92672

TESTED BY



RI OGAWA & ASSOCIATES, INC.  
1985 SAMPSON AVENUE, BUILDING A  
CORONA, CA 92879

Tested and Reported by



Roger Ogawa  
Laboratory Manager

Reviewed and Approved by



Ronald I. Ogawa P.E.  
Laboratory Director

RI Ogawa & Associates, Inc.'s reports are for the exclusive use of the client to whom they are addressed. Permission is granted to reproduce this report provided it is reproduced in its entirety. The use of the name RI Ogawa & Associates, Inc. in any advertising or related materials must have prior written approval. Reports apply only to samples tested and are not necessarily indicative of the quality of apparently identical or similar products. RI Ogawa & Associates, Inc. is a recognized Test Laboratory with the ICC Evaluation Service, Inc. (TL-360).

Lab Address: 1985 Sampson Avenue-Building A, Corona, CA 92879 • Phone (714) 321-4939 • Fax (714) 908-1815 • E-mail: [roger@riogawa.com](mailto:roger@riogawa.com)

Mailing Address: 376 Warner Avenue #376, Huntington Beach, CA 92649 • Phone (714) 292-2602 • Fax (714) 908-1815 • E-mail: [ron@riogawa.com](mailto:ron@riogawa.com)

Engineering • Quality Control • Product Development • Inspections • Code Consulting • Expert Witness • Testing

**TERRATILE - LABORATORY REPORT**  
**REPORT NUMBER: RIO-2293-11**

**Sample Material:** TerraTile floor and paving clay tile labeled "TerraTile Mission Terracotta". Four samples measuring approximately 5.75" x 5.75" were hand delivered by Greg Heydenreich to our laboratory on November 1, 2011.

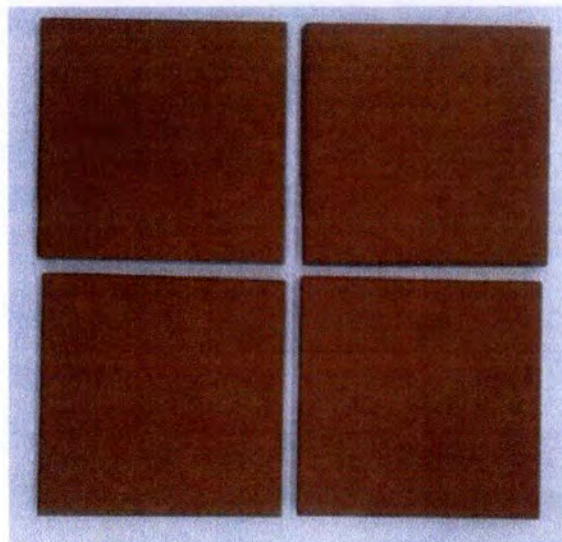
**Test Equipment:** The solar reflectance measurements were conducted using a Solar Spectrum Reflectometer manufactured by Devices & Services Company. The Emissivity measurements were conducted using a portable Emissometer manufactured Devices & Services Company.

**Results:** All measurements were conducted at laboratory conditions of 75°F ± 4°F and 50 ± 5% relative humidity. Measurements were taken on November 3, 2011.

**TERRATILE**  
**REFLECTIVITY - EMISSIVITY - SRI**  
 Report Number: RIO-2293-11

Product	Reflectivity ASTM C1549	Emissivity ASTM C1371	SRI ASTM E1980
TerraTile Mission Terracotta	0.31	0.81	29

**Photograph:**



"TerraTile Mission Terracotta"

TERRATILE - LABORATORY REPORT  
 REPORT NUMBER: RIO-2293-11

Data:

TerraTile Mission Terracotta

Reflectance C1549

Sample #	1	2	3	4	5	6	Average	Std Error
1	0.315	0.313	0.315	0.315	0.315	0.312	0.314	0.0005
2	0.315	0.316	0.312	0.311	0.313	0.313	0.313	0.0008
3	0.312	0.311	0.312	0.313	0.311	0.314	0.312	0.0005
4	0.314	0.316	0.315	0.317	0.314	0.318	0.316	0.0007
							<b>0.31</b>	

Std Error(24 Readings) **0.0005**

TerraTile Mission Terracotta

Emissivity C1371

Sample #	1	2	3	Average
1	0.810	0.810	0.810	0.810
2	0.810	0.810	0.810	0.810
3	0.810	0.810	0.810	0.810
4	0.810	0.810	0.810	0.810
				<b>0.81</b>
				0.000