



PRI Construction Materials Technologies LLC

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Laboratory Test Report

Report for: Aida Ricetti
Hardscape.com
15132 Park of Commerce Blvd. Ste # 103
Jupiter, FL 33487

Product Name(s): Sierra Sand
Project No.: 2275T0006.11
Dates Tested: Aug. 13, 2024
Test Methods: ASTM C1371
ASTM C1549
ASTM E1980

Results Summary:

<u>Product</u>	<u>SRI, Medium-Wind</u>
Sierra Sand	54

Purpose: Determine the solar reflectance, thermal emittance, and solar reflectance index value(s) of the tested product(s).

Test Methods: The test methods used included ASTM C1549-16: *Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Reflectometer*, Procedure B and ASTM C1371-15: *Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers*. Thermal emittance measurement for samples was modified in accordance with Devices and Services Company's Tech Note 04-1. Both of these methods are Energy Star, Leadership in Energy and Environmental Design (LEED), and Cool Roof Rating Council (CRR) approved methods for determining radiative properties.

The solar reflectance index (SRI) was calculated in compliance with ASTM E1980-11: *Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces*.

Sampling: The following materials were received by PRI.

<u>Product</u>	<u>Source</u>	<u>Date</u>	<u>Sampling</u>
Sierra Sand	Jupiter, FL	Aug. 9, 2024	Hardscape.com

2275T0006.11

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Results: All measurements were recorded at 73.4±1.8°F & 50±5%RH

ASTM E 1980

Product	Solar Reflectance		Thermal Emittance		SRI		
	ASTM C1549 ¹		ASTM C1371 ²		ASTM E1980 ³		
	Avg.	Std.Dev.	Avg.	Std.Dev.	Low-Wind	Med-Wind	High-Wind
Sierra Sand – 16" x 32" x 1-1/8"	0.471	0.002	0.88	0.01	53	54	54

- Note(s):
- 1- Reflectance measurements were conducted using a Devices and Services SSR-ER Version 6.4 Reflectometer operated in v5 emulation mode and calibrated with Devices and Services Reference Tile # D-18.
 - 2- Emittance measurements were conducted using a Devices and Services Emittance Model AE calibrated with Devices and Services Reference Standards: High Emittance: 0.86 and Low Emittance: 0.06. Thermal emittance measurement for sample was modified in accordance with Devices and Services Company's Tech Note 04-1.
 - 3- SRI calculations per ASTM E 1980 Approach II utilize the following assumptions: Low-Wind $h_c = 5 \text{ W/m}^2\cdot\text{K}$, Medium-Wind $h_c = 12 \text{ W/m}^2\cdot\text{K}$, and High-Wind $h_c = 30 \text{ W/m}^2\cdot\text{K}$.

Statement of Attestation: The Solar Reflectance Index of these samples was calculated in accordance with **ASTM E 1980: Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces**. The laboratory test results presented in this report are representative of the materials supplied.

Signed:



Anthony Catlett
 Manager

Date:

Aug. 13, 2024

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	08/13/2024	2	NA

END OF REPORT

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