



PRI Construction Materials Technologies LLC

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Laboratory Test Report

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

Product Name(s): Pietra DiVals;
Silver Grey Limestone;
Cadore Rovere;
Cadore Frassino

Project No.: 2275T0001

Dates Tested: Apr. 29, 2020

Test Methods: ASTM C 1371
ASTM C 1549
ASTM E 1980

Results Summary:

Product	SRI		
	Low-Wind	Med-Wind	High-Wind
Pietra DiVals	48	48	48
Silver Grey Limestone	49	49	50
Cadore Rovere	50	50	50
Cadore Frassino	46	47	47

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 C 1549-16: *Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Reflectometer* and ASTM C 1371-15: *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 methods are Leadership in Energy and Environmental Design (LEED), and Cool Roof Rating Council (CRRC) approved methods for determining radiative properties.

The solar reflectance index (SRI) was calculated in compliance with ASTM E 1980-11(2019): *Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces*.

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Sampling: The following materials were received by PRI.

<u>Product</u>	<u>Source</u>	<u>Date</u>	<u>Sampling</u>
Pietra DiVals	Tampa, FL	Apr. 28, 2020	Hardscape.com
Silver Grey Limestone	Tampa, FL	Apr. 28, 2020	Hardscape.com
Cadore Rovere	Tampa, FL	Apr. 28, 2020	Hardscape.com
Cadore Frassino	Tampa, FL	Apr. 28, 2020	Hardscape.com

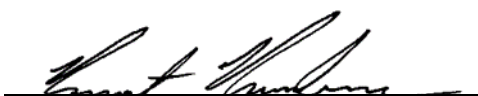
Results:

ASTM E 1980

Property	Solar Reflectance		Thermal Emittance		SRI		
	ASTM C 1549 ¹		ASTM C 1371 ²		ASTM E 1980 ³		
	Avg.	Std.Dev.	Avg.	Std.Dev.	Low-Wind	Med-Wind	High-Wind
Petra DiVals 1 specimen;	0.420	0.007	0.91	0.00	48	48	48
Silver Grey Limestone 1 specimen;	0.434	0.015	0.89	0.00	49	49	50
Cadore Rovere 1 specimen;	0.432	0.008	0.92	0.01	50	50	50
Cadore Frassino 1 specimen;	0.408	0.009	0.91	0.00	46	47	47

- 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: 0.90 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 utilize the following assumptions: Low-Wind $h_c = 5 \text{ W/m}^2\text{-K}$, Medium-Wind $h_c = 12 \text{ W/m}^2\text{-K}$, and High-Wind $h_c = 30 \text{ W/m}^2\text{-K}$.

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: 
 Brent Barbeau
 Manager

Date: Apr. 29, 2020

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	Apr. 29, 2020	3	NA

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Figure 1: Pietra DiVals



Figure 2: Silver Grey Limestone



Figure 3: Cadore Rovere (Top), Cadore Frassino (Bottom)

END OF REPORT

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