

# **PRI Construction Materials Technologies LLC**

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## **Laboratory Test Report**

**Report for:** Jason Rochester

Stepstone, LLC 17025 South Main St. Gardena, CA 90248

**Product Name(s):** See sampling section

Project No.: 2806T0001

Dates Tested: Mar. 20, 2025

Test Methods: ASTM C 1371

ASTM C 1549 ASTM E 1980

**Results Summary:** See Results table

**Purpose:** Determine the solar reflectance, thermal emittance, and solar reflectance index value(s)

of Stepstone, LLC's Cal Arch Paver color portfolio.

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 of these methods are Energy Star, 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: Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped

Opaque Surfaces utilizing Approach II.

#### 2806T0001.13

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Stepstone, LLC.
ASTM C 1549 for Reflectance, ASTM C 1371 for Emittance, and ASTM E 1980 for Solar Reflectance Index (SRI)
Client provided sample(s)
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### Sampling:

The following materials were received by PRI. Specimens provided were Cal arch Pavers with light sandblast finish.

Product	<u>Source</u>	<u>Date</u>	Sampling
Porcelain #1813	Gardena, CA	Mar. 17, 2025	Stepstone, LLC
Granada White #1801	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
Almond #1806	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
Iceberg Green #1805	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
Caramel #1810	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
Kona Brown #1821	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
Agave Green # 1812	Gardena, CA	Mar. 17, 2025	Stepstone, LLC
Adobe #1825	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
French Gray #1804	Gardena, CA	Mar. 17, 2025	Stepstone, LLC.
Café Brown #1807	Gardena, CA	Mar. 17, 2025	Stepstone, LLC
Pebble #1824	Gardena, CA	Mar. 17, 2025	Stepstone, LLC
Brick Red #1816	Gardena, CA	Mar. 17, 2025	Stepstone, LLC

#### **Results:**

	Solar Re	flectance	Thermal	Emittance		SRI	
Property	ASTM C 1549 <sup>1</sup>		ASTM C 1371 <sup>2</sup>		ASTM E 1980 <sup>3</sup>		
	Avg.	Std.Dev.	Avg.	Std.Dev.	Low-Wind	Med-Wind	High-Wind
Solar Reflective Index (SRI) 1 Specimen 4" x 4" Test @ 73.4±3.6°F & 50±10%RH;							
Porcelain #1813 Light Sandblast finish	0.339	0.007	0.93	0.00	38	38	38
Granada White #1801 Light Sandblast finish	0.470	0.004	0.93	0.00	55	55	55
Almond #1806 Light Sandblast finish	0.357	0.005	0.93	0.00	41	41	41
Iceberg Green #1805 Light Sandblast finish	0.409	0.004	0.93	0.00	47	47	48
Caramel #1810 Light Sandblast finish	0.398	0.002	0.93	0.00	46	46	46
Kona Brown #1821 Light Sandblast finish	0.199	0.003	0.93	0.00	21	21	21
Agave Green # 1812 Light Sandblast finish	0.243	0.008	0.93	0.00	26	26	26

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	Solar Reflectance		Thermal Emittance		SRI		
Property	ASTM C 1549 <sup>1</sup>		ASTM C 1371 <sup>2</sup>		ASTM E 1980 <sup>3</sup>		
	Avg.	Std.Dev.	Avg.	Std.Dev.	Low-Wind	Med-Wind	High-Wind
Adobe #1825 Light Sandblast finish	0.234	0.005	0.93	0.00	25	25	25
French Gray #1804 Light Sandblast finish	0.187	0.004	0.92	0.01	18	18	19
Café Brown #1807 Light Sandblast finish	0.251	0.004	0.93	0.00	27	27	27
Pebble #1824 Light Sandblast finish	0.329	0.007	0.93	0.00	37	37	37
Brick Red #1816 Light Sandblast finish	0.227	0.002	0.93	0.00	24	24	24

### 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 Emissometer 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 E1980, 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: Muthry (at

Anthony Catlett Manager

**Date:** Jun. 4, 2025

### **Report Issue History:**

Issue #	Date	Pages	Revision Description (if applicable)
Original	06/04/2025	3	NA

### **END OF REPORT**

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