



CONSTRUCTION MATERIALS

TECHNOLOGIES

LABORATORY TEST RESULTS

Report for: Bemo do Brasil
 Av. Prestes Maia, 539
 Cenro, Diadema/SP 09930-270
 Brazil

Attention: Fernan Castro Rubiano

Product(s): BMALNAT001 BMALSTU002 BMALPOL004	Manufacturer: Bemo do Brasil
Date Received: September 13, 2013	Source: Bemo do Brasil
PRI-CMT Project No.: BDBR-001-02-01	Test Date(s): October 1, 2013

Purpose: The purpose of this testing was to determine the solar reflectance, thermal emittance, and solar reflectance index value for the Client-supplied samples.

Materials: The sample for testing was received from Bemo do Brasil. The sample was labeled as indicated in the data table in the results section of this report.

Test Methods: The test methods used included ASTM C 1549-09: *Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Reflectometer* and ASTM C 1371-04a(2010)^{e1}: *Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers*. 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*.

BDBR-001-02-01 PRI-CMT Accreditations: IAS TL-189; Miami-Dade 11-0429.05; Florida TST5878; Los Angeles TA24819; CRRC
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Results: All measurements were conducted at 72±3°F and 50±5%RH.

Sample ID	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	Medium-Wind	High-Wind
BMALNAT001	0.733	0.002	0.67	0.00	82	85	87
BMALSTU002	0.761	0.008	0.08	0.01	47	71	83
BMALPOL004	0.417	0.002	0.73	0.00	36	40	44

- 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.
 - 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: 
 Zach Priest, P.E.
 Director

Date: October 1, 2013

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	10/1/2013	2	NA

END OF REPORT

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