CONSTRUCTION MATERIALS

TECHNOLOGIES

LABORATORY TEST RESULTS

Report for: Isonem
ITOB OSB 10001 SK.NO:20
Tekeli Menderes
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Attention: Behiye Baser

Product(s): Thermal Paint	**Manufacturer:** Isonem
Date Received: Apr. 23, 2015	**Source:** Isonem
PRI-CMT Project No.: ISNM-001-02-01	**Test Date(s):** Jun. 1, 2015

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

Materials: The sample for testing was received from Isonem. 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)$^{\varepsilon 1}$: *Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.* Thermal emittance measurement for "ceramic coating" sample was modified in accordance with Devices and Services Company's Tech Note 04-1. 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.*

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Results: All measurements were conducted at 72±3°F and 50±5%RH.

Sample ID	Solar Reflectance ASTM C 1549[1]		Thermal Emittance ASTM C 1371[2]		SRI ASTM E 1980[3]		
	Avg.	Std.Dev.	Avg.	Std.Dev.	Low-Wind	Medium-Wind	High-Wind
Thermal Paint	0.820	0.001	0.87	0.01	101	101	102
					Steady-State Surface Temperature (K) ASTM E 1980[3]		
					Low-Wind	Medium-Wind	High-Wind
					321.1	317.1	313.4

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: 0.90 and Low Emittance: 0.06. Thermal emittance measurement for "ceramic coating" 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 $h_c = 5$ W/m^2·K, Medium-Wind $h_c = 12$ W/m^2·K, and High-Wind $h_c = 30$ W/m^2·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: _____

Brad Grzybowski
Managing Director

Date: June 1, 2015

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	06/01/2015	2	NA
Revision1	06/01/2015	2	Editorial

END OF REPORT