



CONSTRUCTION MATERIALS

TECHNOLOGIES

LABORATORY TEST REPORT

Report for: ThorWorks Industries
P.O. Box 2277
Sandusky, OH 44870

Date: June 10, 2008

Attention: Rick Noon

Purpose: The purpose of this testing was to determine the solar reflectance, emittance and solar reflectance index (SRI) of ThorWorks SealMaster ColorPave in Ice Blue, Light Green, Sandstone, Dove Gray, Standard Beige and Standard Red colors .

Materials: The samples for testing were received from ThorWorks Industries on June 3, 2008. The samples were labeled as indicated in the data table in the results section of this report. One sample of each color was provided for testing.

Test Methods: The test methods used included ASTM C 1549-04: *Standard Test Method for Determination of Solar Reflectance Near Ambient Temperature Using a Portable Reflectometer* and ASTM C 1371-04a: *Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers*. Both of these methods are Cool Roof Rating Council (CRRC) approved methods for determining these properties. The solar reflectance index (SRI) was calculated in compliance with ASTM E 1980-01: *Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces*.

Results of Testing: All measurements were conducted at laboratory conditions of $23 \pm 2^{\circ}\text{C}$ and 50 ± 5 percent relative humidity. The testing was conducted on June 10, 2008.

TWII-004-02-01

PRI Accreditations: IAS-ES TL-189; State of Florida TST 5878; Metro-Dade 06-1116.02; CRRC

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Reflectance

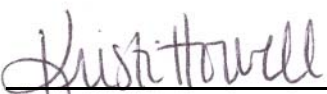
Material ID Specimen No.	ASTM Test Method	Result, Solar Reflectance, Air Mass = 1.5				SRI
		1	2	3	Avg.	
Ice Blue	C 1549	0.518	0.521	0.518	0.52	62
Light Green	C 1549	0.295	0.297	0.292	0.29	31
Sandstone	C 1549	0.404	0.404	0.406	0.40	46
Dove Gray	C 1549	0.309	0.312	0.314	0.31	33
Standard Beige	C 1549	0.174	0.170	0.171	0.17	16
Standard Red	C 1549	0.315	0.314	0.320	0.32	36

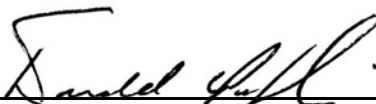
Note: Reflectance measurements were conducted using a Devices and Services SSR-ER Version 5.0 reflectometer calibrated with Devices and Services Reference Standard: 0.807.
 Note: SRI = Solar Reflectance Index as calculated using ASTM E 1980.

Emittance

Material ID Specimen No.	ASTM Test Method	Emittance, ϵ			
		1	2	3	Avg.
Ice Blue	C 1371	0.92	0.92	0.91	0.92
Light Green	C 1371	0.92	0.93	0.92	0.92
Sandstone	C 1371	0.93	0.93	0.92	0.93
Dove Gray	C 1371	0.90	0.91	0.90	0.90
Standard Beige	C 1371	0.92	0.91	0.91	0.91
Standard Red	C 1371	0.93	0.93	0.93	0.93

Note: 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.

Signed: 
 Kristi Howell
 Laboratory Technician

Signed: 
 Donald C. Portfolio
 President

Date: June 10, 2008

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