

*LABORATORY TEST REPORT*

Client : **CSC STEEL SDN. BHD.** Page : **1 of 2**  
Address : **180, Kawasan Industri Ayer Keroh,** Report No. : **SRI131202**  
**Ayer Keroh, 75450 Melaka, Malaysia**  
E-mail : **c123@cscmalaysia.com** Sample Received Date : **26 Nov 2013**  
Telephone : **06-2310169(Ext. 601)** Report Date : **2 Dec 2013**  
Facsimile : **06-2315806, 2310167** Number of Sample(s) : **1**  
Test Requested :

**Solar Reflectance Test According to ASTM C1549**  
**Thermal Emittance Test According to ASTM C1371**  
**SRI Calculation According to ASTM E1980**

This report shall not be reproduced except with prior written approval from AT ARCHITECTURAL TESTING CO LIMITED. Sample(s) and their identifying descriptions have been provided by the client unless otherwise stated. AT ARCHITECTURAL TESTING CO LIMITED makes no warranty, implied or otherwise, as to the source of the tested samples. The test results in this test report apply only to the sample(s) tested.

Checked/ Approved by \_\_\_\_\_ Position \_\_\_\_\_  
Anthony HO DEPUTY DIRECTOR



### General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) submitted.

### Sample Description

Brand name :	realcolor™ Thermoshield
Colour name :	Bright White
Dimension :	15 (cm) x 15 (cm)
Description :	Coating

### Procedures

Solar reflectance test was performed according with ASTM C1549 using a reflectometer. The reflectometer was powered to provide warm-up prior to use. A warm-up time was approximate one hour. Calibration at standard high and low reflectance samples was performed after the warm-up period. The measurement head of the reflectometer was placed on the test sample and held in place at least 90 seconds for each measurement. The reflectometer was calibrated prior to use and calibration was verified at the end of testing.

Thermal emittance test was performed according with ASTM C1371. The test was conducted using an emissometer. The emissometer was powered to provide warm-up prior to use. A warm-up time was approximate one hour. Calibration at high and low emittance was performed after the warm-up period using a digital multimeter with 1.0  $\mu$ V resolution. Test sample was placed in good contact with the thermal sink that is part of the apparatus. A drop of distilled water between the test sample and the thermal sink was used to improve the thermal contact. The measurement head of the emissometer was placed on the test sample and held in place at least 90 seconds for each measurement. The emissometer was calibrated prior to use and calibration was verified at the end of testing.

Solar reflectance and thermal emittance were used to calculate Solar Reflectance Index (SRI) according to ASTM E1980. The software used for the calculations was programmed by Lawrence Berkeley Laboratory, California.

### Test Results

Sample ID : 261113A	Test/Analysis Date	Average Value	Std. Dev.
<b>Solar Reflectance</b>	1 Dec 2013	<b>0.761</b>	0.002
<b>Emittance</b>	2 Dec 2013	<b>0.840</b>	0.002
<b>SRI Calculation</b>	2 Dec 2013	<b>93</b>	-

-End-