Façade & Roof Material
Daylight Reflectance
Test Report
Report number: OTM1910001

Client: Company name
Address line 1
Address line 2
Address line 3
Attention: Name

Laboratory: Optical & Thermal Testing Laboratory
OTM Solutions Pte Ltd
21 Woodlands Close
#07-05 Primz Bizhub
Singapore 737854
Tel: (+65) 6908 0126
WhatsApp: (+65) 8838 1374
Email: info@otm.sg
Web: www.otm.sg

The Optical & Thermal Testing Laboratory of OTM Solutions Pte Ltd is accredited to ISO/IEC 17025 under the Singapore Accreditation Council - Singapore Laboratory Accreditation Scheme (SAC-SINGLAS, Certificate No: LA-2016-0610-G).

The results reported herein have been performed in accordance with the terms of accreditation under the Singapore Accreditation Council.

Report number: OTM1910001
Job description: Total / diffuse / specular daylight reflectance testing of 1 piece of sample.
The sample was delivered by the client and received by OTM on 01/10/2019 and was tested on 01/10/2019.

Approved signatory: Dr. Chen Fangzhi
Laboratory Manager (Tel: +65 9187 7666; Email: chen.fz@otm.sg)

Date of test: 01/10/2019
Date of report: 01/10/2019
Test method description

| Methods:                  | • ASTM E903-12 Standard test method for solar absorptance, reflectance, and transmittance of materials using integrating spheres  
|                          | • ASTM E971-11 Standard practice for calculation of photometric transmittance and reflectance of materials to solar radiation  
|                          | • CIE 130-1998 Practical methods for the measurement of reflectance and transmittance  |
| Instruments              | • PerkinElmer Lambda 950 UV/VIS/NIR spectrophotometer, with 150 mm integrating sphere  
|                          | • Reflectance reference material: Spectralon diffuse reference standard  
|                          | (serial number: 99AA03-0319-2095, calibrated on 07/05/2019)  |
| Calculation software     | • In-house software (DLR@OTM, V1.2.0) based on ASTM E971-11  
|                          | (based on ASTM G173 AM1.5 direct normal solar spectrum)  |
| Estimated uncertainties  | • Total daylight reflectance: ±0.006 (±0.6%)  
|                          | • Diffuse daylight reflectance: ±0.006 (±0.6%)  
|                          | • Specular daylight reflectance: ±0.004 (±0.4%)  
|                          | • The uncertainties were estimated at a level of confidence of approximately 95%, with a coverage factor k = 2  
|                          | • The estimated uncertainties do not include uncertainties caused by sample-to-sample variations and sample non-uniformities  |
| Notes                    | N/A  |

Disclaimer

- The test report shall not be reproduced except in full, without written approval of the laboratory.
- The test results relate only to the sample tested.
- The test report is issued subject to the “Testing Service Terms and Conditions” annexed to OTM official quotation and on request from OTM.
# Façade & Roof Material Daylight Reflectance Test Report

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<table>
<thead>
<tr>
<th>Sample ID</th>
<th>1910001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client's reference</td>
<td>Client's reference</td>
</tr>
<tr>
<td>Dimension</td>
<td>1 mm × 10 cm × 10 cm</td>
</tr>
</tbody>
</table>

**Test results**

- Total daylight reflectance = 0.260 (26.0%)
- Diffuse daylight reflectance = 0.250 (25.0%)
- Specular daylight reflectance = 0.010 (1.0%)

**Curves**

![Reflectance vs Wavelength](chart.png)

**Pictures**

Test sample photos