



**Solar Thermal
Research Laboratory**

Department of Mechanical Engineering
University of Waterloo
Waterloo, ON, Canada, N2L 3G1

2.0 Results

The test results are summarized in the table.

Sample Name	Solar Reflectance	Solar Absorptance	Longwave Reflectance	Emissivity
A	0.052	0.948	0.16	0.84
B	0.052	0.948	0.17	0.83
C	0.051	0.949	0.17	0.83

The results strongly suggest that there is no difference between the samples measured.

Complete wavelength/property files for each measurement have been mailed the Element.

3.0 Comments

- NA

4.0 References

ASTM E903-12 *Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.*

ASTM G173 *Standard Tables for Reference Solar Spectral Irradiances: Direct Normal and Hemispherical on 37° Tilted Surface.*

ASTM E408-13 *Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.*

ASTM E1980-11 *Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces.*

Siegel and Howell *Thermal Radiation Heat Transfer, 4th Ed.* Taylor & Francis, 2002.

U.S. Green Building Council (2012). Heat Island Reduction: SS7. Retrieved April 6, 2015, from <http://www.usgbc.org/credits/ss7>