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## Total Hemispherical Emittance Test Report

Test Number: RD082395HE Date of Test: July 11, 2008

Specimen Number: 1021080606-7 Date of Manufacture: 2008

Description of Test Specimens: Facer from AstroShield II.

Test Protocol: ASTM C 1371-04a, "Test Method for Determination of Emittance of Materials near Room Temperature Using Portable Emisometers".

Report Prepared For: Innovative Energy / Eric Baker

### Procedure

This report presents the results of the test specimen identified above using a Model AE emissometer manufactured by Devices and Services Company of Dallas, Texas. The emissometer is powered to provide warm-up prior to use. A warm-up time of one hour in a conditioned laboratory has been found to be acceptable. Calibration at high and low emittance is performed after the warm-up period using a digital multimeter with 1.0  $\mu$ V resolution. Test specimens are placed in good contact with the thermal sink that is part of the apparatus. A drop of distilled water between the test specimen and a thermal sink was used to improve the thermal contact. The measurement head of the emissometer is placed on the test specimen 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. The average emittance reported below is based on three measurements.


### Comment

The facer was removed from the bubble pack core for the measurement of emittance.

<u>R&amp;D Identification</u>	<u>Specimen Description</u>	<u>Average Emittance</u>
1021080606-7	metallized film facer from AstroShield II	0.050 (initial value)

### Uncertainty

The 95% reproducibility as stated in Section 10 of ASTM C1371-04a is 0.019 units.

  
Reviewed By: \_\_\_\_\_

08-27-08  
Date: \_\_\_\_\_

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The results of this report apply only to the specimen tested.