



TEST REPORT

Thermal Emittance Measurement According to ASTM C1371

Product Identification: Xtreme Breathable (A2-120-X-B)

Prepared For:

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TEST REPORT NUMBER: RD20211

DATE OF REPORT: March 2, 2020

A handwritten signature in black ink, appearing to read 'Stuart Ruis', written over a horizontal line.

Stuart Ruis
President

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USA

The test results in this report apply only to the specimens tested. The tests conform to the respective test methods except for the report requirements. The report includes summary data but a full complement of data is available upon request. This report shall not be reproduced, except in full, without written approval of R & D Services, Inc. This report must not be used by the client to claim product endorsement by R & D Services, Inc., IAS or any other organization.

TEST REPORT PREPARED FOR
RadiantGUARD
DATE OF TEST
February 3 – 13, 2020
R&D SERVICES SPECIMEN IDENTIFICATION
2058200130-52
MANUFACTURE DATE OF SPECIMENS
Unknown

DESCRIPTION OF TEST SPECIMENS

Xtreme Breathable (A2-120-X-B) RadiantGUARD Radiant Barrier

TEST METHOD

ASTM C1371-15, "Test Method for Determination of Emittance of Materials near Room Temperature Using Portable Emissometers".

CONDITIONING OF SPECIMEN

The specimens were dried and conditioned for not less than 40 h at $73.4 \pm 1.8^{\circ}\text{F}$ ($23 \pm 1^{\circ}\text{C}$), and $50 \pm 5\%$ relative humidity before testing.

TEST METHOD 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 (0.89) and low (0.06) emittance is performed after the warm-up period using calibration disks supplied by Devices and Services Company. Test specimens are placed in good contact with the thermal sink that is part of the apparatus. 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.

Two specimens were measured before and after a high heat and high humidity exposure per ASTM D3310. "Specimen 1" was exposed to high heat and humidity. "Control" was exposed to high heat only.



TEST RESULTS

Test Temperature: 69 °F
Test Humidity: 50 % RH

Pre ASTM D3310 Exposure

Specimen ID	Specimen Description	Average Emittance	Standard Deviation
2058200130-52	Specimen 1	0.062	0.002
2058200130-52	Control	0.058	0.003

Post ASTM D3310 Exposure

Specimen ID	Specimen Description	Average Emittance	Standard Deviation
2058200130-52	Specimen 1	0.047	0.002
2058200130-52	Control	0.057	0.003

UNCERTAINTY

The average 95% reproducibility as stated in Section 10 of ASTM C1371-15 is 0.019 units.



Reviewed By:

3/2/20

Date: