




Report on the  
**Hot Surface Performance of Reflectix Insulation Material**

Prepared for:  
**Reflectix, Inc**  
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Testing Services Division of Holometrix, Inc.

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## Report on the

### HOT SURFACE PERFORMANCE OF REFLECTIX INSULATION MATERIAL

Holometrix was contracted by Reflectix, Inc. to evaluate one sample of "Reflectix Spiral Duct Wrap" insulation material for hot surface performance at a nominal hot face temperature of 121 °C (250 °F).

One roll of material was supplied. Sections were cut to approximately 6 inches by 18 inches. The sections were laid adjacent to each other to make a test sample 24 inches by 18 inches.

The test results are given after a description of the experimental procedure.

#### Experimental Procedure for Testing by C 411-82

The hot surface performance was evaluated in accordance with ASTM C 411-82, *Hot-Surface Performance of High-Temperature Thermal Insulation*. Measurements of the samples were taken and notes were made of the original sample condition. The flat insulation sections were applied to the top of a horizontally mounted 24 inch square heater. The surface plate is fabricated of 10 mm (0.38 inch) thick stainless steel, smoothly finished to conform to a true plane to within 0.025 percent. The joints between the insulation sections were made carefully to ensure that there were no significant gaps. Thermocouples were placed on the heated surface and on the exposed insulation surface. Power was then applied to the plate to allow it to reach the desired temperature level slowly (at a heating rate of less than 100 °C per hour). A steady temperature was maintained on the heated surface by a precision set point controller. During the test period, the temperatures of various points on the heated surface were obtained from thermocouple readings. The test specimen was exposed to the hot surface for 96 hours (4 days), after which time the heated surface was allowed to cool. The specimen was then removed and examined.

TABLE 1.

**THE HOT SURFACE PERFORMANCE OF  
A SPECIMEN OF REFLECTIX INSULATION**

<u>Specimen Identification:</u>	REFLECTIX Spiral Duct Wrap
<u>Number of Layers:</u>	1
<u>Thickness:</u>	7 mm (.28 in.)
<u>Test Density:</u>	43 kg/m <sup>3</sup> (2.7 lbs/ft <sup>3</sup> )
<u>Test Temperature:</u>	121 °C (250 °F)
<u>Test Duration:</u>	96 Hours
<u>Warping:</u>	None
<u>Delamination</u>	None
<u>Cracking:</u>	None
<u>Observations Upon Removal from Hot Surface:</u>	No evidence of ignition, smoking, or smoldering.