



## Test Report

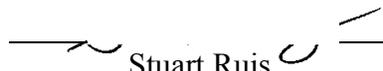
### Selected Measurements on R-38 Fiberglass Batt

Prepared For:

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Cookeville, Tennessee 38502-2400

Report: RD16517

  
Stuart Ruis  
President

September 2, 2016

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.

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## Dimensional Tolerance Test Report

Test Number: RD161567DT

Date of Test: August 26, 2016

Specimen Number: 1957160824-2

Date of Manufacture: November 7, 2013

Description of Test Specimen: R-38 Kraft Faced Fiberglass Batt Manufactured by Company B

Test Method: ASTM C 167-15, "Test Methods for Thickness and Density of Blanket or Batt Thermal Insulations."

Report Prepared For: Craig Conner

### Results:

	<b>Minimum Measurement (inch)</b>	<b>Maximum Measurement (inch)</b>	<b>Average Measurement (inch)</b>	<b>Recovery (% of label)</b>
Length	49.00	49.67	49.39	102.9
Width	16.00	16.42	16.14	100.9
Thickness	11.35	11.75	11.56	96.3

Mass per area (lb/ft <sup>2</sup> )	0.54
Density at recovered thickness (lb/ft <sup>3</sup> )	0.56
Density at nominal thickness (lb/ft <sup>3</sup> )	0.54

Review: \_\_\_\_\_

9/2/16

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## Thermal Resistance Test Report

Test Number: RD161564TR

Date of Test: August 29, 2016

Specimen Number: 1957160824-2

Date of Manufacture: November 7, 2013

HFM File Number: 16-4172

Description of Test Specimen: R-38 Kraft Faced Fiberglass Batt Manufactured by Company B; Sample 1 of 3

Test Method: ASTM C 518-15, "Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus."

Report Prepared For: Craig Conner

Sample Conditioning: Minimum 24 hours at 70 ± 3 °F and 50 ± 5 %RH

The results in this report were obtained with a heat-flow meter built and operated in accordance with ASTM C 518-15.

Heat Flow Meter	<u>30 by 30</u>	inch by inch
Specimen Thickness (as received)	<u>11.560</u>	inch
Tested Specimen Thickness	<u>11.560</u>	inch
Specimen density	<u>0.62</u>	lb/ft <sup>3</sup>
Cold plate temperature	<u>55.04</u>	°F
Hot plate temperature	<u>95.04</u>	°F
Average specimen temperature	<u>75.04</u>	°F
Apparent thermal conductivity	<u>0.3087</u>	Btu·in./ft <sup>2</sup> ·hr·°F
Thermal resistivity (R-per-inch)	<u>3.239</u>	ft <sup>2</sup> ·hr·°F/Btu·in.
Thermal resistance of specimen	<u>37.4</u>	ft <sup>2</sup> ·hr·°F/Btu

### Notes:

Calibration factor used for manual calculation: NA

Heat Flow Direction: Up

Edge guards or cabinet temperature satisfactory: Yes

Excessive moisture on cold plate: No

Length of time for test (hours): 7.3

The precision of this test is estimated to be 2.5 % (Section 10.8, ASTM C 518-15)

      
 Reviewed By:     

9/2/16  
 Date:

\*Abridged ASTM C518 Test Report.



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## Thermal Resistance Test Report

Test Number: RD161589TR

Date of Test: August 31, 2016

Specimen Number: 1957160824-2

Date of Manufacture: November 7, 2013

HFM File Number: 16-4175

Description of Test Specimen: R-38 Kraft Faced Fiberglass Batt Manufactured by Company B; Sample 2 of 3

Test Method: ASTM C 518-15, "Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus."

Report Prepared For: Craig Conner

Sample Conditioning: Minimum 24 hours at 70 ± 3 °F and 50 ± 5 %RH

The results in this report were obtained with a heat-flow meter built and operated in accordance with ASTM C 518-15.

Heat Flow Meter	<u>30 by 30</u>	inch by inch
Specimen Thickness (as received)	<u>11.560</u>	inch
Tested Specimen Thickness	<u>11.560</u>	inch
Specimen density	<u>0.52</u>	lb/ft <sup>3</sup>
Cold plate temperature	<u>55.02</u>	°F
Hot plate temperature	<u>95.04</u>	°F
Average specimen temperature	<u>75.03</u>	°F
Apparent thermal conductivity	<u>0.3240</u>	Btu·in./ft <sup>2</sup> ·hr·°F
Thermal resistivity (R-per-inch)	<u>3.086</u>	ft <sup>2</sup> ·hr·°F/Btu·in.
Thermal resistance of specimen	<u>35.7</u>	ft <sup>2</sup> ·hr·°F/Btu

### Notes:

Calibration factor used for manual calculation: NA

Heat Flow Direction: Up

Edge guards or cabinet temperature satisfactory: Yes

Excessive moisture on cold plate: No

Length of time for test (hours): 4.7

The precision of this test is estimated to be 2.5 % (Section 10.8, ASTM C 518-15)

Reviewed By: \_\_\_\_\_  
 \*Abridged ASTM C518 Test Report.

9/2/16  
 Date:



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## Thermal Resistance Test Report

Test Number: RD161590TR

Date of Test: August 31, 2016

Specimen Number: 1957160824-2

Date of Manufacture: November 7, 2013

HFM File Number: 16-4176

Description of Test Specimen: R-38 Kraft Faced Fiberglass Batt Manufactured by Company B; Sample 3 of 3

Test Method: ASTM C 518-15, "Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus."

Report Prepared For: Craig Conner

Sample Conditioning: Minimum 24 hours at 70 ± 3 °F and 50 ± 5 %RH

The results in this report were obtained with a heat-flow meter built and operated in accordance with ASTM C 518-15.

Heat Flow Meter	<u>30 by 30</u>	inch by inch
Specimen Thickness (as received)	<u>11.560</u>	inch
Tested Specimen Thickness	<u>11.560</u>	inch
Specimen density	<u>0.55</u>	lb/ft <sup>3</sup>
Cold plate temperature	<u>55.04</u>	°F
Hot plate temperature	<u>95.04</u>	°F
Average specimen temperature	<u>75.04</u>	°F
Apparent thermal conductivity	<u>0.3315</u>	Btu·in./ft <sup>2</sup> ·hr·°F
Thermal resistivity (R-per-inch)	<u>3.017</u>	ft <sup>2</sup> ·hr·°F/Btu·in.
Thermal resistance of specimen	<u>34.9</u>	ft <sup>2</sup> ·hr·°F/Btu

### Notes:

Calibration factor used for manual calculation: NA

Heat Flow Direction: Up

Edge guards or cabinet temperature satisfactory: Yes

Excessive moisture on cold plate: No

Length of time for test (hours): 4.9

The precision of this test is estimated to be 2.5 % (Section 10.8, ASTM C 518-15)

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

9/2/16  
 Date: \_\_\_\_\_

\*Abridged ASTM C518 Test Report.