Intertek | Architectural Testing

HEAT FLOW METER THERMAL TRANSMISSION TEST REPORT

Report No.: F4535.01-116-25

Rendered to:

ECO SUPPLY
Richmond, Virginia 23230

PRODUCT TYPE: Expanded Cork

SERIES / MODEL: Thermacork 6" Insulation Grade

SPECIFICATION: ASTM C518-15, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

Test Completion Date: 10/31/16
Report Date: 11/01/16

1.0 Report Issued To: ECO Supply
2115 Westmoreland St.
Richmond, Virginia 23230

2.0 Test Laboratory: Intertek - ATI
130 Derry Court
York, PA 17406
717-764-7700

3.0 Project Summary:

3.1 Product Type: Expanded Cork
3.2 Series/Model: Thermacork 6" Insulation Grade
3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method. The testing conforms with all requirements of the referenced specification with the exception that results are reported in English units. Test specimen description and results are reported herein.
3.4 Test Date: 10/28/2016 to 10/31/2016
3.5 Test Record Retention End Date: All test records for this report will be retained until October 28, 2020.
3.6 Test Location: Intertek - ATI test facility in York, Pennsylvania.

3.7 Test Sample Source: The test specimen was provided by the client. Representative samples of the test specimen will be retained by Intertek - ATI for a minimum of four years from the test completion date.

4.0 Test Method:

ASTM C518-15, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

5.0 Test Conditions:

5.1	**Cold plate temperature:**	0	50 °F nominal
	Warm plate temperature:	70	100 °F nominal
	Mean specimen temperature:	35	75 °F nominal
	Average Temperature Gradient:	70	50 °F/inch

5.2 Orientation of Heat Flow Meter Apparatus: Vertical heat flow (Down)
5.3 Specimen Configuration: Single horizontal specimen
5.3 Metering: 4" x 4" heat flux transducer on warm side plate

6.0 Test Specimen Description:

6.1 Specimen Test Size: 24 inches x 24 inches
Compressible Sample: No

6.2 Specimen Construction: The test specimens were provided by the client in two pieces approximately 6" x 18" x 38". The pieces were then cut down to form a 6" x 24" x 24 sample, so that once piece was approximately 6" in width and the other was 18" in width. The two pieces were then butted together using the factory provided 1-3/4" overlap at the seam.

7.0 Test Results:

7.1 Product Results Thermacork 6" Insulation Grade, Expanded Cork

	Thermacork 6" Insulation Grade, 75 Mean	Thermacork 6" Insulation Grade, 35 Mean
Test Specimen ID	1	2
Test Duration (minutes)	50	50
Average heat flux (Btu/hr·ft2)	2.40	3.03
Average thermal conductance - C (Btu/hr·ft2·°F)	0.05	0.04
Average thermal resistance -R (hr·ft2·°F/ Btu)	20.85	23.10
Average thermal resistance - R_{si} (m2·K/W)	3.67	4.07
Average thermal resistivity -r (hr·ft2·°F/ Btu-in)	3.54	3.92
Apparent thermal conductivity - k (Btu-in/hr·ft2·°F)	0.282	0.255
Specimen Average Thickness (inches)	5.889	5.889
†Specimen Average Density (Lbs/Ft^3)	6.83	6.83

Notes: †The density of the sample was determined by dividing the average weight of the sample by its volume. The weight was measured using a calibrated scale and the volume was determined by measuring the length, width and height of the sample.

7.2 Uncertainty: Less than 3%, per ANSI/NCSL Z540-2-1997 Type B.

8.0 Calibration:

8.1 Material Types Used: NIST Standard Reference Material 1450d, Fibrous Glass Board, Serial Number 357
Dated January 20, 2012, no expiration

Material Thermal Resistance:
4.395 hr·ft^2·°F/ Btu (75 Mean)
4.75 hr·ft^2·°F/ Btu (35 Mean)

Intertek - ATI will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Intertek - ATI for the entire test record retention period. The test record retention end date for this report is October 28, 2020.

Results obtained are tested values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Intertek - ATI.

For INTERTEK - ATI :

TESTED BY:

Benjamin W. Green
Lead Technician - Thermal

REVIEWED BY:

Kevin S. Louder
Manager-Thermal Testing & Simulations

Attachments (pages): This report is complete only when all attachments listed are included.
Appendix A: Photos (3)

Revision Log

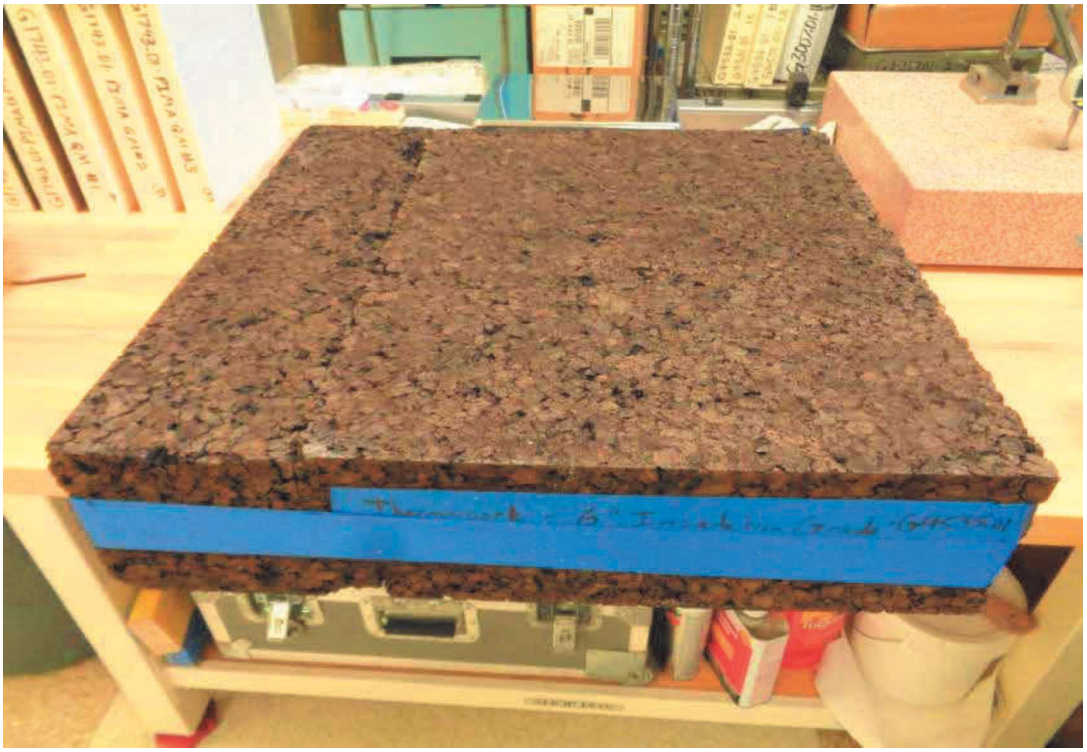
Rev. #	Date	Page(s)	Revision(s)
.01R0	11/1/2016	All	Original Report Issue

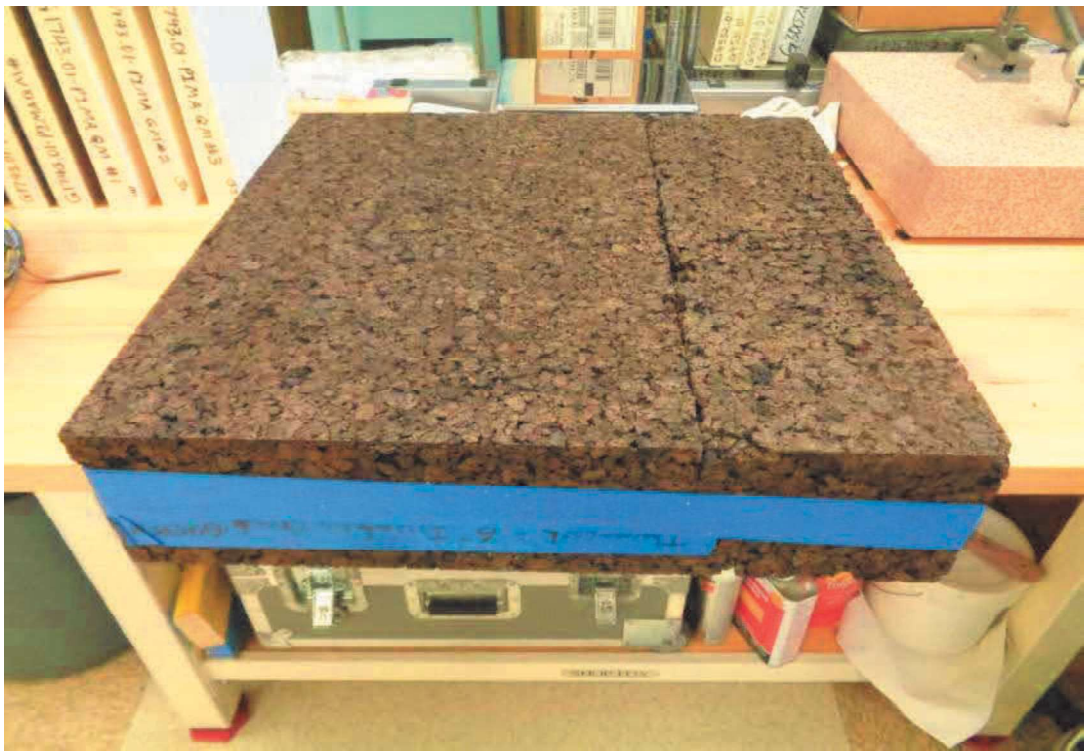
Pictures of the samples tested are enclosed in this Appendix

Appendix A
F4535.01-116-25

Test Specimen

Test Specimen (continued)





Test Specimen (continued)