

**HEAT FLOW METER THERMAL TRANSMISSION
TEST REPORT**

Report No.: L6266.01-116-25

Rendered to:

AIRCRETE MEXICO
Tezontepec, Mexico 43880

PRODUCT TYPE: Cladding Product

SERIES / MODEL: Aerated, Autoclaved Concrete

SPECIFICATION: ASTM C518-17, Standard Test Method for Steady-State Thermal
Transmission Properties by Means of the Heat Flow Meter Apparatus

Test Completion Date: 12/07/20
Report Date: 12/08/20



1.0 Report Issued To: Aircrete Mexico
Calle 3 Numero 7
Tezontepec, Mexico 43880

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

3.0 Project Summary:

- 3.1 Product Type:** Cladding Product
- 3.2 Series/Model:** Aerated, Autoclaved Concrete
- 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:** 12/03/2020 to 12/08/2020
- 3.5 Test Record Retention End Date:** All test records for this report will be retained until December 03, 2024.
- 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 one year from the test completion date.

4.0 Test Method:

ASTM C518-17, 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:** 50 °F nominal
- Warm plate temperature:** 100 °F nominal
- Mean specimen temperature:** 75 °F nominal
- Average Temperature Gradient:** 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:** 12 inches x 12 inches
Compressible Sample: No
- 6.2 Specimen Construction:** The test specimens were provided by the client as 3 sheets of material approximately 2" x 12" x 12". The samples were tested as provided.

7.0 Test Results:

7.1 Product Results Aerated, Autoclaved Concrete

	Sample 1	Sample 2	Sample 3
Test Specimen ID	1	2	3
Test Duration (minutes)	50	50	50
Average heat flux (Btu/hr·ft ²)	22.19	21.96	21.05
Average thermal conductance - C (Btu/hr·ft ² ·°F)	0.444	0.439	0.421
Average thermal resistance - R (hr·ft ² ·°F / Btu)	2.25	2.28	2.38
Average thermal resistance - R _{si} (m ² ·K/W)	0.40	0.40	0.42
Average thermal resistivity - r (hr·ft ² ·°F / Btu-in)	1.17	1.18	1.23
Apparent thermal conductivity - k (Btu-in/hr·ft ² ·°F)	0.858	0.847	0.812
Specimen Average Thickness (inches)	1.932	1.929	1.930
†Specimen Average Density (Lbs/Ft ³)	33.6	34.7	33.2

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: 4.39 hr·ft²·°F/ Btu

Intertek - ATI will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, 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 December 3, 2024.

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:

REVIEWED BY:

Benjamin W. Green
Project Lead - Thermal

Eric S. Leitner
Manager-Thermal Testing & Simulations

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

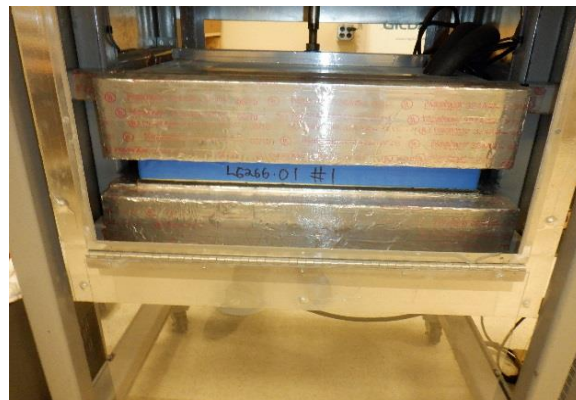
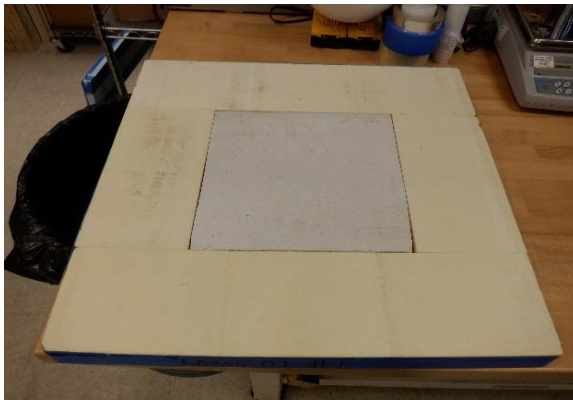
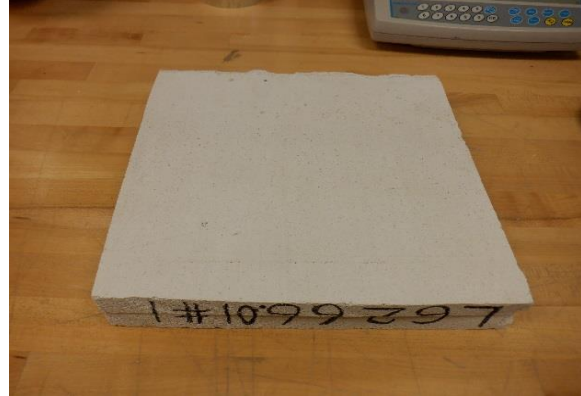
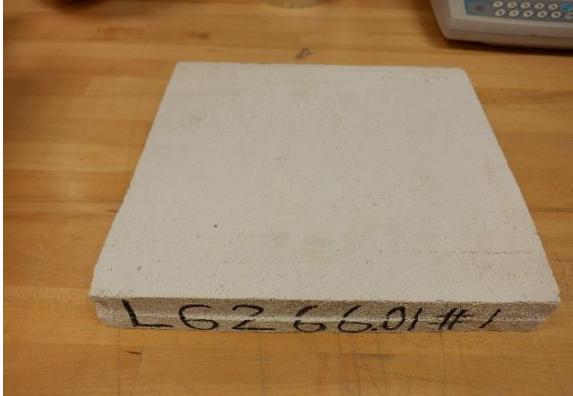
Appendix A: Photos (3)

Revision Log

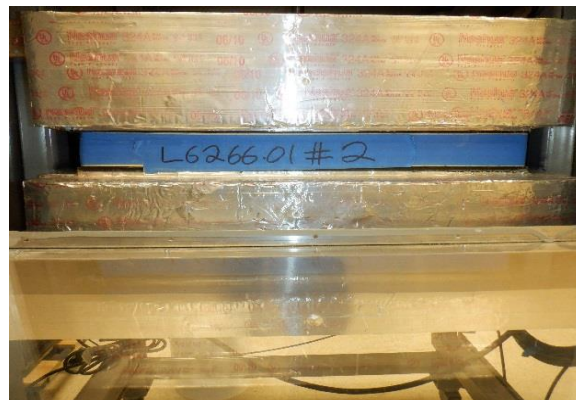
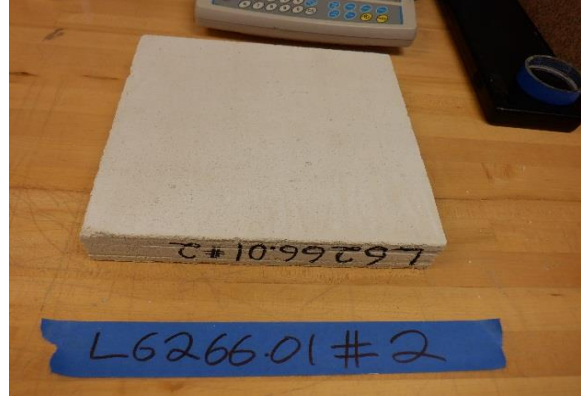
<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01R0	12/8/2020	All	Original Report Issue

Pictures of the samples tested are enclosed in this Appendix

Aerated, Autoclaved Concrete Cladding Product, Sample 1



Aerated, Autoclaved Concrete Cladding Product, Sample 2



Aerated, Autoclaved Concrete Cladding Product, Sample 3

