

BILCO BRICK CORPORATION

HEAT FLOW METER TEST REPORT

SCOPE OF WORK

CONCRETE BRICK - ASTM C518

REPORT NUMBER

T1891.01-116-25 R0

TEST DATE

01/17/22

ISSUE DATE

12/18/25

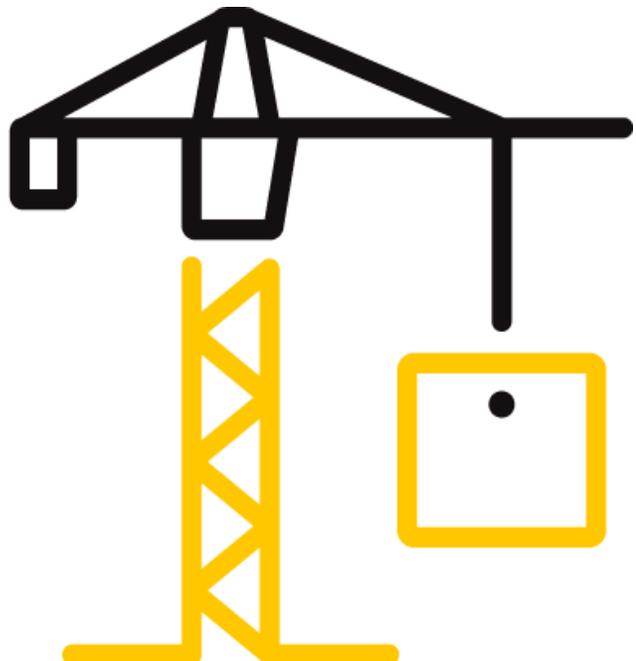
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TEST REPORT FOR BILCO BRICK CORPORATION

Report No.: T1891.01-116-25 R0

Date: 12/18/25

REPORT ISSUED TO

BILCO BRICK CORPORATION

2116 N. Lancaster-Hutchins Rd.

Lancaster, Texas 75134

SECTION 1

SUMMARY

SERIES/MODEL: Concrete Brick

Architectural Testing, Inc. (an Intertek Company), dba Intertek Building & Construction (B&C), was contracted by Bilco Brick Corporation to perform heat flow meter testing in accordance with ASTM C518 on their Concrete Brick, Brick. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at the Intertek B&C test facility in York, Pennsylvania.

Intertek B&C is an accredited testing laboratory and all testing was conducted in full compliance with ASTM approved procedures and specifications.

Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, or other pertinent project documentation, will be retained for the entire test record retention period. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

For INTERTEK B&C:

COMPLETED BY: Eric S. Leitner
Manager - Thermal
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DATE: 12/18/25

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SIGNATURE:
DATE: 12/18/25

ESL:esl

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SECTION 2

TEST METHODS

The product were evaluated in accordance with the following:

ASTM C518-21, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

SECTION 3

TEST SPECIMEN DESCRIPTION

SERIES/MODEL	Concrete Brick
PRODUCT TYPE	Brick
SPECIMEN TEST SIZE	12" x 12"

**This product is not a compressible sample.*

SPECIMEN CONSTRUCTION	The test specimens were provided by the client three (3) samples measuring approximately ~3" x 13-1/4" x 12-1/4" of stacked bricks. The samples were conditioned for 24hr (22°C and 50% RH per C518, Section 7.3) prior to testing. Rubber interface mats were used between the sample and HFM plates and were mathematically deducted from the final calculations. See Section 8: Pictures.
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SECTION 4

TEST CONDITIONS

COLD PLATE TEMPERATURE	50°F nominal
WARM PLATE TEMPERATURE	100°F nominal
MEAN SPECIMEN TEMPERATURE	75°F nominal
AVERAGE TEMPERATURE GRADIENT	50°F/inch nominal
HEAT FLOW ORIENTATION	Vertical Heat Flow (Down)
SPECIMEN CONFIGURATION	Single horizontal specimen
METERING AREA	4" x 4" heat flux transducer on warm side plate

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SECTION 5 EQUIPMENT

DESCRIPTION	SERIAL #	ASSET #	CALIBRATION DUE
Adams Scale (LBX 30)	AEA9Y9765	INT03439	12/09/26
Digital Indicators (0-1")	13379073	65196	12/09/26
Temp/Humidity Transmitter	12961265	63736	12/09/26
Digital Calipers 0-12"	-	INT03818	04/15/26
ATI12 Meter	Y003324	NA	*

*Device calibrated prior to use

SECTION 6 CALIBRATION INFORMATION

Calibration Material	NIST Standard Reference Material 1450d, Fibrous Glass Board, Serial Number 357, dated January 20, 2012, no expiration.	
SRM Thermal Conductance (C)	0.070	(Btu/hr·ft ² ·°F)

SECTION 7 TEST RESULTS (IP Units)

Test Specimen ID	Sample Name	Avg. Heat Flux (Btu/hr·ft ²)	Avg. Thermal Conductance (C) (Btu/hr·ft ² ·°F)	Avg. Thermal Resistance (R) (hr·ft ² ·°F/Btu)	Avg. Thermal Resistivity (r) (hr·ft ² ·°F/Btu-in)	Apparent Thermal Conductivity (k) (Btu-in/hr·ft ² ·°F)	Specimen Avg. Thickness (inches)	†Specimen Avg. Density (Lbs/Ft ³)
1	Sample 1	65.08	1.301	0.77	0.28	3.597	2.766	130.78
2	Sample 2	75.23	1.502	0.67	0.24	4.166	2.773	129.02
3	Sample 3	79.70	1.596	0.63	0.23	4.416	2.767	133.00

*SAMPLE 1 - FINAL (k) (Btu-in/hr·ft²·°F)	4.08	*SAMPLE 1 - FINAL (R) (hr·ft²·°F/Btu)	0.68
*SAMPLE 2 - FINAL (k) (Btu-in/hr·ft²·°F)	4.90	*SAMPLE 2 - FINAL (R) (hr·ft²·°F/Btu)	0.57
*SAMPLE 3 - FINAL (k) (Btu-in/hr·ft²·°F)	5.29	*SAMPLE 3 - FINAL (R) (hr·ft²·°F/Btu)	0.52

* Neoprene mats were mathematically subtracted to determine final k value of butyl material only.

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SECTION 7 (continued)

TEST RESULTS (SI Units)

Test Specimen ID	Sample Name	Avg. Heat Flux (W/m ²)	Avg. Thermal Conductance (C) (W/m ² ·K)	Avg. Thermal Resistance (Rsi) (m ² ·K/W)	Avg. Thermal Resistivity (r) (m·K/W)	Apparent Thermal Conductivity (k) (W/m·K)	Specimen Avg. Thickness (mm)	†Specimen Avg. Density (kg/m ³)
1	Sample 1	205.31	7.385	0.14	1.94	0.519	70.26	2094.91
2	Sample 2	237.33	8.531	0.12	1.66	0.601	70.43	2066.73
3	Sample 3	251.41	9.062	0.11	1.59	0.637	70.28	2130.39

†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.

ANSI/NCSL Z540-2-1997 Type B uncertainty for this test was: 3.8 %

*SAMPLE 1 - FINAL (k) (W/m·K)	0.588	*SAMPLE 1 - FINAL (Rsi) (m²·K/W)	0.11
*SAMPLE 2 - FINAL (k) (W/m·K)	0.707	*SAMPLE 3 - FINAL (Rsi) (m²·K/W)	0.09
*SAMPLE 3 - FINAL (k) (W/m·K)	0.763	*SAMPLE 3 - FINAL (Rsi) (m²·K/W)	0.08

* Neoprene mats were mathematically subtracted to determine final k value of butyl material only.

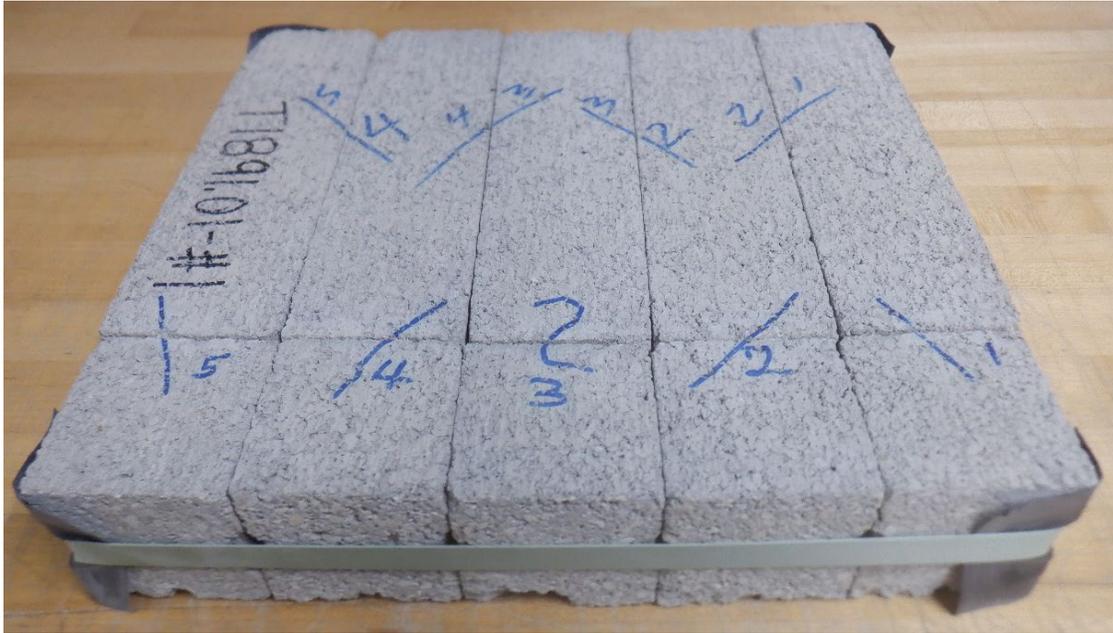
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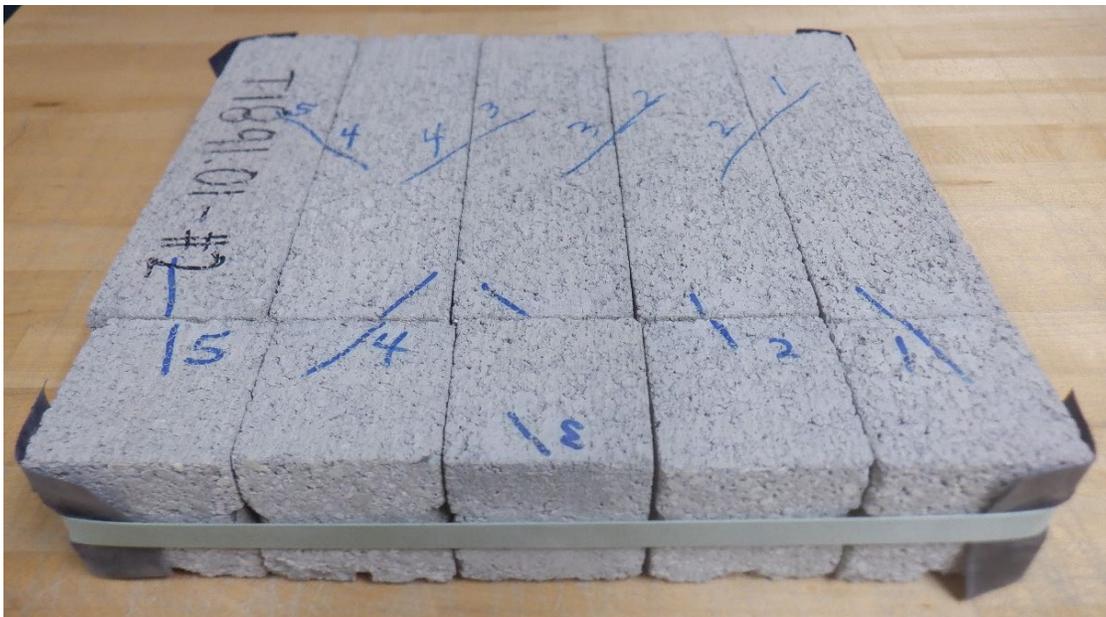
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SECTION 8 PICTURES

Sample 1 (as received/tested)



Sample 2 (as received/tested)



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SECTION 8 (continued)

PICTURES

Sample 2 (bottom, typ.)



Sample 3 (as received/tested)





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SECTION 9

REVISION LOG

REVISION #	DATE	PAGES	REVISION
.01 R0	12/18/25	N/A	Original Report Issued to Customer.