

Technical Services Laboratory Report
for

Bilco Brick
(Premium Modular-Size Brick)

ASTM C1634 Testing of Concrete Masonry Units
Lancaster, Texas

AASHTO Accredited

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(Premium Modular-Size Brick)
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INTRODUCTION

The Technical Services Laboratories of Master Builders Solutions Admixtures US, LLC received one set of normal weight concrete brick units, each measuring 3.6 x 2.3 x 7.6 inches, on 5/22/26. The units were identified as Premium modular-size brick. Testing was requested to evaluate compliance with ASTM C1634-23, Specification for Concrete Facing Brick and Other Concrete Masonry Facing Units. The submitted mix design can be found in Appendix A.

SAMPLE PREPARATION AND METHODS

Compressive strength, density, and absorption characteristics were determined in accordance with the testing procedures outlined in ASTM C140-26, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units. Compressive strength specimens were capped with high strength gypsum prior to testing per ASTM C1552-23, Standard Practice for Capping Concrete Masonry Units, Related Units and Masonry Prisms for Compression Testing.

RESULTS

The results of testing are summarized in Table 1. More complete data on compressive strength, density and absorption can be found in Appendix B.

Table 1 – Testing Results for Premium Modular-Size Brick

Strength (psi)	Density (pcf)	Absorption (%)
8640	131.1	8.1

CONCLUSION

The units tested meet the requirements of ASTM C1634-23, Concrete Facing Brick and Other Concrete Masonry Facing Units.

Appendix B – ASTM C140 Data



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ASTM C140/C140-20 Test Report

Sampling and Testing Concrete Masonry Units and Related Units

W/O No.: 26-0454

Client: Bilco Brick
Address: Lancaster, TX
Unit Spec: ASTM C1634

Testing Agency: Master Builders Solutions US LLC
Date Samples Received: 5/22/2026

Unit Description: Normal Weight
2.2x3.6x7.6

Project ID: Premium (White)

Summary of Test Results:	ASTM C1643 Specified Values	Premium (White) Average Test Results	
Physical Property			
Net Compressive Strength	3500 min	8640	psi
Gross Compressive Strength	---	8210	psi
Density (Oven Dry Condition)	≥125	131.1	pcf
Absorption	10 max	8.1	pcf
Absorption %		6.2	%
Percent Solid	---	100.0	%
Net Cross-Sectional Area	---	26.7	in. ²
Gross Cross-Sectional Area	---	28.1	in. ²

Full Size Unit Measurements

Date Tested:		Avg. Width (in.)	Avg. Height (in.)	Avg. Length (in.)
7/7/2026	A	3.6	2.2	7.7
	B	3.7	2.3	7.7
	C	3.6	2.2	7.7
	Average	3.6	2.2	7.7

Compression Specimens

Date Tested:		Avg. Width (in.)	Avg. Height (in.)	Avg. Length (in.)	Cross-Sectional Area		Max. Load (lb)	Compressive Strength	
					Gross (in. ²)	Net (in. ²)		Gross (psi)	Net (psi)
7/7/2026	A	3.6	2.2	7.7	27.8	26.8	239807	8620	8960
	B	3.7	2.3	7.7	28.5	26.6	221240	7770	8330
	C	3.6	2.2	7.7	28.0	26.8	231278	8260	8640
	Average	3.6	2.2	7.7	28.1	26.7	230775	8210	8640

Absorption Specimens

Date Tested:		Avg. Width (in.)	Avg. Height (in.)	Avg. Length (in.)	Equivalent thickness (in.)
6/22/2026	A	3.6	2.2	7.7	3.5
	B	3.7	2.3	7.7	3.4
	C	3.6	2.2	7.7	3.5
	Average	3.6	2.2	7.7	3.5

Date Tested:		Received Weight (lb)	Immersed Weight (lb)	Saturated Weight (lb)	Oven-Dry Weight (lb)	Absorption (pcf)	Absorption (%)	Net Volume (ft ³)	Moisture Content (%)	Density (pcf)
6/22/2026 to 6/25/2026	A	4.7	2.7	4.9	4.6	7.8	5.9	0.03	47.4	132.0
	B	4.7	2.7	4.8	4.5	8.2	6.3	0.03	45.9	130.7
	C	4.6	2.6	4.8	4.5	8.2	6.2	0.03	44.8	130.6
	Average	4.7	2.7	4.8	4.5	8.1	6.2	0.03	46.0	131.1

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