

ASTM C140/C140M-17b Test Report
Sampling and Testing Concrete Masonry Units and Related Units

Job No: 18-391-2
Report Date: 7/6/2018

Client: W.W. Thompson Concrete Prod.
Address: 702 Industrial Park Rd.
Brainerd, MN 56401

Testing Agency: National Concrete Masonry Association
Research and Development Laboratory
Address: 13750 Sunrise Valley Drive
Herndon, VA 20171-4662

Unit Specification: ASTM C936/C936M-16

Sampling Party: W.W. Thompson Concrete Prod.

Unit Description: Concrete Paving Unit
Mark: '4-B'

Date Samples Received: 6/5/2018

Specified Height (mm): 60

**ASTM C140
Required
Compression
Specimen**

Summary of Test Results

	ASTM C936 Required	Actual		ASTM C140 Required Compression Specimen	Actual
Net Area Compressive Strength:	8000 min	10750	psi	2.1 max	2.02
Absorption:	5 max	4.0	%	Aspect Ratio (R_s):	0.60 - 1.20
Density (Oven Dry Condition):	---	137.2	lb/ft ³	Average Cap Thickness:	0.0625 max
					0.03 in.

Individual Unit Test Results

Full Size Unit Measurements

	Avg. Width (in.)	Avg. Height (in.)	Avg. Length (in.)	Sample Weight (lb)
Unit #1	3.853	2.332	7.816	5.60
Unit #2	3.862	2.357	7.809	5.64
Unit #3	3.858	2.387	7.800	5.79
Average	3.858	2.358	7.808	5.68

Date Tested:
6/7/2018

Compression Specimens

Date Tested: 6/7/2018

	Avg. Width (in.)	Avg. Height (in.)	Avg. Length (in.)	Sample Weight (lb)	Average After Capping Height (in.)	Average Cap Thickness (in.)	Average Aspect Ratio R_s	Average Aspect Ratio Factor F_s	Average Total Load (lb)	Average Net * Area (in. ²)	Average Net Area Compressive Strength (psi)
Unit #1	3.853	2.332	7.816	5.60	2.385	0.026	0.61	0.99	327350	30.11	10800
Unit #2	3.862	2.357	7.809	5.64	2.412	0.028	0.61	1.00	309910	30.16	10260
Unit #3	3.858	2.387	7.800	5.79	2.453	0.033	0.62	1.01	334760	30.09	11200
Average	3.858	2.358	7.808	5.68	2.416	0.029	0.61	1.00	324010	30.12	10750

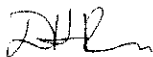
* Net area determined as the product of the length and width of the unit.

Absorption Specimens


	Received Weight W_a (lb)	Immersed Weight W_i (lb)	SSD Weight W_s (lb)	Oven-Dry Weight W_o (lb)	Absorption (%)	Density (pcf)	Net Volume (ft ³)
Unit #4	5.82	3.35	5.90	5.70	3.5	139.4	0.0409
Unit #5	5.58	3.20	5.71	5.47	4.3	136.3	0.0401
Unit #6	5.61	3.21	5.73	5.50	4.3	136.0	0.0404
Average	5.67	3.25	5.78	5.55	4.0	137.2	0.0405

Date Tested:
6/8/2018
to
6/10/2018

Comments: 1) These units meet or exceed the compressive strength, absorption, and dimensional requirements of ASTM C936/C936M-16.



Douglas H. Ross
Manager, Research and Development Laboratory



Jason J. Thompson
Vice President of Engineering