NATIONAL CONCRETE MASONRY ASSOCIATION
RESEARCH & DEVELOPMENT LABORATORY

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

Job No.: 18-282-2A
Report Date: 3/12/2018

Client: Parker Block
Address: 30324 Millsboro Hwy
Millsboro, DE 19966

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

Standard Specification: ASTM C90-16a

Sampling Party: Parker Block

Unit Description:
6 x 8 x 16 *inch* Concrete Masonry Unit

Date Samples Received: 2/27/2018

Project Identification: 14th Day Testing

Summary of Test Results

Physical Property	ASTM C90-16a Specified Values	Average Test Results	
Net Compressive Strength	2000 *min*	2160	psi
Gross Compressive Strength	****	1230	psi
Density	****	87.7	pcf
Absorption	18 *max*	12.8	pcf
Percent Solid	****	57.1	%
Net Cross-Sectional Area	****	50.46	$in.^2$
Gross Cross-Sectional Area	****	88.44	$in.^2$

Physical Property	ASTM C90-16a Specified Values	Average Test Results	
Min. Faceshell Thickness (t_{fs})	1.00 *min*	1.12	in.
Min. Web Thickness (t_w)	0.75 min	1.15	in.
Equivalent Web Thickness	****	2.65	in.
Normalized Web Area (A_{wn})	6.5 min	29.5	$in.^2/ft^2$
Equivalent Thickness	****	3.23	in.
Max. Var. from Spec. Dimensions	.125 *max*	0.050	in.

Individual Unit Test Results

Compression Units	Specimen No.	Received Weight lb	Cross-Sectional Area * Gross $in.^2$	Cross-Sectional Area * Net $in.^2$	Max. Load lb	Compressive Strength Gross psi	Compressive Strength Net psi
	#1	20.72	88.44	50.46	116600	1340	2350
	#2	19.90	88.44	50.46	107170	1210	2120
Date Tested:	#3	19.80	88.44	50.46	101750	1150	2020
3/9/2018	Average	20.14	88.44	50.46	108180	1230	2160

* Unit areas determined as the average of the three absorption units and are assumed to be the same as those units tested in compression.

Absorption Units	Specimen No.	Avg Width in.	Avg Height in.	Avg Length in.	*Minimum* Web Height in.	Avg./Min. Face Shell Thickness in.	Min. Web Thickness in.	*Minimum* Web Area $in.^2$	Normalized Web Area $in.^2/ft^2$
	#4	5.67	7.64	15.62	7.64	1.15	1.18	26.91	30.3
	#5	5.67	7.62	15.63	7.62	1.14	1.16	27.02	30.4
Date Tested:	#6	5.66	7.58	15.59	7.58	1.06	1.09	24.78	27.9
3/7/2018	Average	5.67	7.61	15.61	7.61	1.12	1.15	26.24	29.5

**Where the thinnest points of opposite face shells differ in thickness by less than 0.125 inches, their measurements are averaged.

	Specimen No.	Received Weight lb	*Immersed* Weight lb	Saturated Weight lb	Oven-Dry Weight lb	Absorption pcf	Density pcf	Net Volume ft^3	Percent Solid %
Date Tested:	#4	20.76	8.60	22.66	19.78	12.9	87.7	0.2256	57.7
3/9/2018	#5	2.68	3.58	22.60	19.74	12.7	87.9	0.2247	57.5
to	#6	19.86	8.24	21.74	18.98	12.8	87.7	0.2163	56.0
3/12/2018	Average	14.43	8.47	22.34	19.50	12.8	87.7	0.2222	57.1

Comments: 1) These units meet or exceed the compression strength, absorption and dimensional requirements of ASTM C90-16a.

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Form TR-C140-01
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