

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

Job No.: 18-282-1A
Report Date: 3/12/2018

Client: Parker Block
Address: 30324 Millsboro Hwy
Millsboro, DE 19968

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: 4 x 8 x 16 Inch Concrete Masonry Unit

Date Samples Received: 2/27/2018

Project Identification: 14th Day Testing

Summary of Test Results

	ASTM C90-16a Specified Values	Average Test Results			ASTM C90-16a Specified Values	Average Test Results		
Physical Property					Physical Property			
Net Compressive Strength	2000 min	2830	psi		Min. Faceshell Thickness (t_f)	0.75 min	1.04	in.
Gross Compressive Strength	****	2120	psi		Min. Web Thickness (t_w)	0.75 min	1.10	in.
Density	****	104.9	pcf		Equivalent Web Thickness	****	3.38	in.
Absorption	18 max	10.6	pcf		Normalized Web Area (A_{wn})	6.5 min	37.4	in. ² /ft ²
Percent Solid	****	75.2	%		Equivalent Thickness	****	2.75	in.
Net Cross-Sectional Area	****	42.86	in. ²		Max. Var. from Spec. Dimensions	.125 max	0.065	in.
Gross Cross-Sectional Area	****	57.03	in. ²					

Individual Unit Test Results

Compression Units	Specimen No.	Received Weight lb	Cross-Sectional Area *		Max. Load lb	Compressive Strength	
			Gross in ²	Net in ²		Gross psi	Net psi
	#1	19.88	57.03	42.86	92260	1620	2150
	#2	20.60	57.03	42.86	133870	2340	3120
	#3	20.28	57.03	42.86	137450	2410	3210
	Average	20.25	57.03	42.86	121130	2120	2830

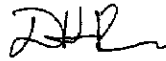
* Unit areas determined as the average of the three absorption units and are assumed to be the same as those units tested in compression.

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	3.65	7.58	15.59	7.58	1.03	1.10	33.21	37.4
	#5	3.84	7.58	15.81	7.56	1.03	1.10	33.19	37.3
	#6	3.69	7.59	15.59	7.59	1.05	1.10	33.34	37.5
	Average	3.66	7.57	15.60	7.57	1.04	1.10	33.25	37.4

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

Date Tested: 3/8/2018 to 3/12/2018	Specimen No.	Received Weight lb	Immersion Weight lb	Saturated Weight lb	Oven-Dry Weight lb	Absorption pcf	Density pcf	Net Volume ft ³	Percent Solid %
	#4	20.20	9.75	21.38	19.38	10.7	104.0	0.1864	75.0
	#5	20.40	9.90	21.60	19.56	10.9	104.3	0.1875	75.4
	#6	21.02	10.24	22.06	20.14	10.1	106.3	0.1894	75.1
	Average	20.54	9.96	21.68	19.69	10.6	104.8	0.1878	75.2

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



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