



**NATIONAL  
CONCRETE MASONRY  
ASSOCIATION**

Sustainable Concrete Products for Structures and Hardscapes

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**ASTM C 140 Test Report**

Job No.: 07-270-3  
Report Date: 4/9/2007

Client: Allied Concrete  
Address: 1000 Harris St Box 1647  
Charlottesville, VA 22902

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

Unit Specification: ASTM C90-06

Sampling Party: Allied Concrete

Unit Designation/Description:  
8" Double Corner  
Concrete Masonry Unit

**Summary of Test Results**

Physical Property	Specified Values	Average Test Results	Physical Property	Specified Values	Average Test Results
Net Compressive Strength	1900 min	2640 psi	Min. Faceshell Thickness ( $t_{fs}$ )	1.25 min	1.29 in.
Gross Compressive Strength	****	1370 psi	Min. Web Thickness ( $t_w$ )	1.00 min	1.2 in.
Density	****	102.8 pcf	Equivalent Web Thickness	2.25 min	2.8 in.
Absorption	18 max	14.1 pcf	Equivalent Thickness	****	4.0 in.
Percent Solid	****	51.8 %	Max. Var. from Spec. Dimensions	.125 max	0.04 in.
			Net Cross-Sectional Area	****	61.7 in <sup>2</sup>
			Gross Cross-Sectional Area	****	119.0 in <sup>2</sup>

**Individual Unit Test Results**

Specimen No.	Received Wt, $W_R$ lb	Cross-Sectional Area *		Max. Load lb	Compressive Strength	
		Gross in <sup>2</sup>	Net in <sup>2</sup>		Gross psi	Net psi
#1	29.63	119.04	61.66	162400	1360	2630
#2	29.22	119.04	61.66	177980	1500	2890
#3	29.16	119.04	61.66	147740	1240	2400
Average	29.34	119.04	61.66	162710	1370	2640

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

Specimen No.	Avg Width in.	Avg Height in.	Avg Length in.	Avg./Min. $t_{fs}$ ** in.	Min. $t_w$ in.
#4	7.66	7.59	15.59	1.29	1.21
#5	7.62	7.62	15.59	1.29	1.21
#6	7.63	7.58	15.61	1.28	1.21
Average	7.64	7.60	15.59	1.29	1.21

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

Specimen No.	Received Wt, $W_R$ lb	Immersed Wt, $W_I$ lb	Saturated Wt, $W_S$ lb	Oven-Dry Wt, $W_D$ lb	Absorp pcf	Density pcf	Net Volume ft <sup>3</sup>	Percent Solid %
#4	29.30	14.80	31.68	27.97	13.7	103.4	0.2705	51.6
#5	29.27	14.78	31.70	27.86	14.2	102.7	0.2712	51.8
#6	29.10	14.70	31.63	27.72	14.4	102.2	0.2713	52.0
Average	29.22	14.76	31.67	27.85	14.1	102.8	0.2710	51.8

Comments: These tested properties meet the compressive strength, absorption and dimensional requirements of ASTM C 90-06.

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