NATIONAL CONCRETE MASONRY ASSOCIATION
Sustainable Concrete Products for Structures and Hardscapes
90th ANNIVERSARY

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ASTM C 140 Test Report

Job No.: 08-338-3
Report Date: 6/5/2008

Client: Allied Concrete Company
Address: PO Box 1647
Charlottesville, VA 22902-1647

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

Unit Specification: ASTM C90-06

Sampling Party: Allied Concrete Company

Unit Designation/Description:
8 x 8 x 16 Inch Concrete Masonry Unit

Date Samples Received: 4/29/2008

Summary of Test Results

Physical Property	Specified Values	Average Test Results		Physical Property	Specified Values	Average Test Results	
Net Compressive Strength	1900 min	3240	psi	Min. Faceshell Thickness (t_{fs})	1.25 min	1.27	in.
Gross Compressive Strength	****	1640	psi	Min. Web Thickness (t_w)	1.00 min	1.11	in.
Density	****	104.6	pcf	Equivalent Web Thickness	2.25 min	2.57	in.
Absorption	18 max	12.8	pcf	Equivalent Thickness	****	3.87	in.
Percent Solid	****	50.7	%	Max. Var. from Spec. Dimensions	.125 max	0.055	in.
				Net Cross-Sectional Area	****	60.35	in^2
				Gross Cross-Sectional Area	****	119.03	in^2

Individual Unit Test Results

Compression Units	Specimen No.	Received Wt, W_R 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	29.51	119.03	60.35	197270	1660	3270
	#2	29.31	119.03	60.35	193160	1620	3200
Date Tested	#3	29.06	119.03	60.35	195790	1640	3240
5/21/2008	Average	29.29	119.03	60.35	195410	1640	3240

* 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.	Avg./Min. t_{fs}** in.	Min. t_w in.
	#4	7.64	7.59	15.61	1.27	1.11
	#5	7.64	7.60	15.59	1.27	1.11
	#6	7.63	7.57	15.59	1.28	1.11
	Average	7.63	7.59	15.59	1.27	1.11

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

Date Tested:	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^3	Percent Solid %
5/1/2008	#4	29.42	14.61	31.19	27.83	12.6	104.7	0.2657	50.7
to	#5	29.37	14.60	31.11	27.72	12.8	104.8	0.2646	50.6
5/5/2008	#6	28.95	14.46	30.96	27.57	12.8	104.3	0.2644	50.8
	Average	29.25	14.56	31.09	27.71	12.8	104.6	0.2649	50.7

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

Nicholas R. Lang
Research Engineer