



13750 SUNRISE VALLEY DRIVE
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ASTM C 140 Test Report

Job No.: 08-338-1
 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:
 4 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	
		Results	Units			Results	Units
Net Compressive Strength	1900 min	2300	psi	Min. Faceshell Thickness (t_{fs})	0.75 min	1.10	in.
Gross Compressive Strength	****	1700	psi	Min. Web Thickness (t_w)	0.75 min	1.22	in.
Density	****	113.2	pcf	Equivalent Web Thickness	1.63 min	2.82	in.
Absorption	15 max	12.0	pcf	Equivalent Thickness	****	2.69	in.
Percent Solid	****	73.7	%	Max. Var. from Spec. Dimensions	.125 max	0.115	in.
				Net Cross-Sectional Area	****	41.90	in ²
				Gross Cross-Sectional Area	****	56.84	in ²

Individual Unit Test Results

Compression Units	Specimen No.	Received		Cross-Sectional Area *		Max. Load	Compressive Strength	
		Wt, W_R	lb	Gross	Net		Gross	Net
		lb	in ²	in ²	psi		psi	
	#1	22.04	56.84	41.90	99460	1750	2370	
	#2	21.45	56.84	41.90	93800	1650	2240	
	#3	21.40	56.84	41.90	96180	1690	2300	
Date Tested 5/21/2008	Average	21.63	56.84	41.90	96480	1700	2300	

* 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	Avg	Avg	Avg./Min.	Min.
		Width	Height	Length	t_{fs}^{**}	t_w
		in.	in.	in.	in.	in.
	#4	3.65	7.51	15.57	1.14	1.23
	#5	3.65	7.54	15.57	1.11	1.19
	#6	3.65	7.56	15.58	1.04	1.24
	Average	3.65	7.54	15.57	1.10	1.22

**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	Immersed	Saturated	Oven-Dry	Absorp	Density	Net Volume	Percent Solid
		Wt, W_R	Wt, W_I	Wt, W_S	Wt, W_D				
		lb	lb	lb	lb				
5/1/2008	#4	22.01	11.60	23.13	20.88	12.2	113.0	0.1848	74.8
to	#5	21.50	11.51	22.84	20.73	11.6	114.2	0.1816	73.2
5/5/2008	#6	21.37	11.34	22.69	20.47	12.2	112.5	0.1819	73.1
	Average	21.63	11.48	22.89	20.69	12.0	113.2	0.1827	73.7

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

Nicholas R. Lang
 Research Engineer