



13750 SUNRISE VALLEY DRIVE
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ASTM C 140 Test Report

Job No.: 08-338-2
 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:
 12 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	2590 psi	Min. Faceshell Thickness (t_{fs})	1.25 min	1.52 in.
Gross Compressive Strength	****	1240 psi	Min. Web Thickness (t_w)	1.13 min	1.37 in.
Density	****	102.1 pcf	Equivalent Web Thickness	2.5 min	3.15 in.
Absorption	18 max	13.4 pcf	Equivalent Thickness	****	5.61 in.
Percent Solid	****	48.2 %	Max. Var. from Spec. Dimensions	.125 max	0.065 in.
			Net Cross-Sectional Area	****	87.53 in ²
			Gross Cross-Sectional Area	****	181.62 in ²

Individual Unit Test Results

Compression Units	Specimen No.	Received	Cross-Sectional Area *		Max. Load	Compressive Strength	
		Wt, W_R lb	Gross in ²	Net in ²		Gross psi	Net psi
	#1	41.60	181.62	87.53	245660	1350	2810
	#2	41.16	181.62	87.53	205590	1130	2350
	#3	40.75	181.62	87.53	227260	1250	2600
Date Tested 5/21/2008	Average	41.17	181.62	87.53	226170	1240	2590

* 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 in.	Height in.	Length in.	t_{fs}^{**} in.	t_w in.
	#4	11.64	7.63	15.64	1.52	1.36
	#5	11.64	7.63	15.59	1.53	1.37
	#6	11.63	7.56	15.61	1.53	1.37
	Average	11.64	7.61	15.61	1.52	1.37

**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	Percent
		Wt, W_R lb	Wt, W_I lb	Wt, W_S lb	Wt, W_D lb				
5/1/2008	#4	41.24	20.47	44.55	39.32	13.6	101.9	0.3859	48.0
to	#5	41.04	20.50	44.63	39.55	13.1	102.3	0.3867	48.3
5/5/2008	#6	40.94	20.35	44.27	39.10	13.5	102.0	0.3833	48.3
	Average	41.07	20.44	44.48	39.32	13.4	102.1	0.3853	48.2

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

Nicholas R. Lang
 Research Engineer