

ASTM C140/C140M-20a Test Report
Sampling and Testing Concrete Masonry Units and Related Units

NCMA Project Number: 20-491-2A
Report Date: 12/10/2020

Client: Texas Building Products
Address: 3261 Highway 108
Strawn, TX 76475

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: Texas Building Products

Unit Description: 8x8x16 in. CMU
Mark: '1120B'

Date Samples Received: 11/24/2020

Summary of Test Results

	ASTM C90-16a Specified Values	Average Test Results		ASTM C90-16a Specified Values	Average Test Results	
<u>Physical Property</u>			<u>Physical Property</u>			
Net Compressive Strength	2,000 min	2,760	psi	Min. Face Shell Thickness (t_{fs})	1.25 min	1.33 in.
Gross Compressive Strength	****	1,480	psi	Min. Web Thickness (t_w)	0.75 min	1.16 in.
Density	****	122.2	pcf	Equivalent Web Thickness	****	2.67 in.
Absorption	15 max	10.6	pcf	Normalized Web Area (A_{wn})	6.5 min	29.7 in. ² /ft ²
Percent Solid	****	53.4	%	Equivalent Thickness	****	4.10 in.
Net Cross-Sectional Area	****	63.70	in. ²	Maximum Variation from Specified Dimensions	.125 max	0.08 in.
Gross Cross-Sectional Area	****	119.33	in. ²			

Individual Unit Test Results


Compression Units	Specimen No.	Received Weight lb	Cross-Sectional Area*		Maximum Load lb	Compressive Strength	
			Gross in ²	Net in ²		Gross psi	Net psi
			Date Tested: 12/9/2020	1		34.7	119.3
	2	34.9	119.3	63.7	184,420	1,550	2,890
	3	34.7	119.3	63.7	164,560	1,380	2,580
	Average	34.8	119.3	63.7	176,100	1,480	2,760

* 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.	Average Width in.	Average Height in.	Average Length in.	Minimum Web Height in.	Avg./Min.		Minimum Web Area in. ²	Normalized Web Area in. ² /ft ²
						Face Shell Thickness**	Min. Web Thickness		
						Date Tested: 12/3/2020	4		
	5	7.64	7.61	15.55	7.61	1.32	1.15	26.19	29.5
	6	7.70	7.60	15.56	7.60	1.33	1.16	26.54	29.9
	Average	7.67	7.61	15.55	7.61	1.33	1.16	26.38	29.7

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

Date Tested:	Specimen No.	Received Weight lb	Immersed Weight lb	Saturated Weight lb	Oven-Dry Weight lb	Absorption pcf	Density pcf	Net Volume ft ³	Percent Solid %										
										12/7/2020	4	34.7	19.8	37.3	34.3	10.8	121.9	0.281	53.3
										to 12/9/2020	5	34.9	19.9	37.4	34.5	10.2	123.4	0.280	53.5
	6	34.5	19.6	37.1	34.1	10.8	121.4	0.281	53.3										
	Average	34.7	19.8	37.3	34.3	10.6	122.2	0.281	53.4										


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