

Client: Mr. John P. Orsina  
Address: Westbrook Concrete Block Co., Inc.  
PO Box 700  
Westbrook CT 06498

Project Name: Westbrook Concrete Block Co.

Date Received: August 3, 2017

Date of Compression Testing: August 16, 2017

Unit Specification: ASTM C90

Unit Designation and Description: Concrete Masonry Unit  
Set 5: 12x8x16" OMNI Profile

Laboratory Number: 10- 152282

**Summary of Test Results**

Physical Property	Specification Values	Average Test Results	Physical Property	Specification Values	Average Test Results
Net Compressive Strength (min.)	2000	<b>9620</b> <i>psi</i>	Min. Faceshell Thickness (FST)	0.75	<b>1.53</b> <i>in.</i>
Gross Compressive Strength		<b>9590</b> <i>psi</i>	Min. Web Thickness (WT)	0.750	<b>1.38</b> <i>in.</i>
Density		<b>153.0</b> <i>pcf</i>	Equivalent Web Thickness		<b>8.22</b> <i>in.</i>
Absorption (max.)	13	<b>3.3</b> <i>pcf</i>	Equivalent Thickness		<b>6.61</b> <i>in.</i>
Percent Solid		<b>98.2</b> %	Normalized Web Area	6.5	<b>50.8</b> <i>in.<sup>2</sup>/ft.<sup>2</sup></i>
Net Cross-Sectional Area		<b>9.49</b> <i>in.<sup>2</sup></i>	Max. Var. From Spec. Dimensions		<i>in.</i>
Gross Cross-Sectional Area		<b>9.51</b> <i>in.<sup>2</sup></i>	Moisture Content		%

**Individual Unit Test Results**

Tests conducted on reduced size units.

Specimen No.	Received Wt, W <sub>R</sub> <i>lb.</i>	Cross-Sectional Area		Max. Load <i>lb</i>	Compressive Strength	
		Gross <i>in.<sup>2</sup></i>	Net* <i>in.<sup>2</sup></i>		Gross <i>psi</i>	Net <i>psi</i>
4		9.48	9.48	91705	9660	9670
5		9.78	9.58	97860	10000	10220
6		9.27	9.43	84670	9130	8970
<b>Average</b>		<b>9.51</b>	<b>9.49</b>	<b>91410</b>	<b>9590</b>	<b>9620</b>


\* Net area determined from absorption specimens unless solid units are used.

Specimen No.	Average Width <i>in.</i>	Average Height <i>in.</i>	Average Length <i>in.</i>	Average Min. FST <i>in.</i>	Average Min. WT <i>in.</i>	Normalized Web Area <i>In.<sup>2</sup>/ft.<sup>2</sup></i>
1	1.63	3.01	6.04	1.53	1.38	50.8
2	1.56	2.98	6.05	1.53	1.38	50.8
3	1.57	3.01	6.04	1.53	1.38	50.8
<b>Average</b>	<b>1.58</b>	<b>3.00</b>	<b>6.04</b>	<b>1.53</b>	<b>1.38</b>	<b>50.8</b>

Specimen No.	Received Wt, W <sub>R</sub> ** <i>lb</i>	Immersed Wt, W <sub>I</sub> <i>lb</i>	Saturated Wt, W <sub>S</sub> <i>lb</i>	Oven-Dry Wt, W <sub>O</sub> <i>lb</i>	Absorption		Density <i>pcf</i>	Net Volume <i>ft.<sup>3</sup></i>	Net Area <i>in.<sup>2</sup></i>	Percent Solid %	Moisture Content** % of total absorption
	<i>lb</i>	<i>lb</i>	<i>lb</i>	<i>lb</i>	<i>pcf</i>	%	<i>pcf</i>	<i>ft.<sup>3</sup></i>	<i>in.<sup>2</sup></i>	%	
1	71.06	1.57	2.61	2.56	3.0	2.0	153.6	0.0167	9.37	97.6	
2	70.13	1.52	2.51	2.46	3.2	2.0	155.1	0.0159	9.45	97.4	
3	69.44	1.50	2.52	2.46	3.7	2.4	150.5	0.0163	9.37	99.5	
<b>Average</b>	<b>70.21</b>	<b>1.53</b>	<b>2.55</b>	<b>2.49</b>	<b>3.3</b>	<b>2.1</b>	<b>153.0</b>	<b>0.0163</b>	<b>9.39</b>	<b>98.2</b>	

\*\*Received weight determined at the time of unit delivery to the job site or from units sampled at that time and delivered to the laboratory in sealed containers for moisture content determination.

**Remarks:** The units were tested according to ASTM C140. This set meets the absorption and compressive strength requirements of ASTM C90  
NCMA 7-1C Fire Rating: 4 hours.

  
Chas M. Snyder, PE  
Laboratory Manager