

Project: Production Check
 Project Location: Medford, Mn

AET# 11-04860
 April 2, 2009

Report of Concrete Block Testing

Sample Number 16A 16B 16C Avg.
 Block Type: 16" Stretcher
 Block Producer: NorthStar Masonry
 Date Tested: 4/2/2009
 Tested By: Jeff Bale

ASTM C90 Specifications

Dimensions

	16A	16B	16C	Avg.	Individual Unit	Average of 3 Units
Length, in:	15.59	15.59	15.59		15 5/8 ±1/8" (15.5 to 15.75)	
Width, in:	15.67	15.63	15.66		15 5/8 ±1/8" (15.5 to 15.75)	
Height, in:	7.64	7.61	7.61		7 5/8 ±1/8" (7.5 to 7.75)	
Face Shell, in:	1.54	1.55	1.55	1.54		min 1 1/2" (1.50)
Web, in:	1.26	1.27	1.25	1.26		min 1 1/8" (1.13)
Equivalent Web:	2.91	2.94	2.90	2.92		min 2 1/2" (2.50)
Equivalent Thickness	6.51	6.55	6.55	6.54		
Weight as received, lb	61.0	61.1	60.7			

Physical Properties

Moisture Content, %:	24.8	23.7	21.9			
Absorption, %:	6.0	5.9	6.2			
Absorption lb/cu ft.	8.1	8.0	8.3	8.1	max 15	max 13
Density, pcf	133.9	134.0	133.1	133.7		min 125

Strength

Total Load, lbs:	224500	260250	238050			
Gross Area, sq. in:	244.3	243.7	244.1			
Gross Strength, psi:	920	1070	980	990		
Net Area, sq. in:	101.5	102.1	102.2			
Net Strength, psi:	2210	2550	2330	2360	min 1700	min 1900

Remarks: The samples meet ASTM:C90 specifications for hollow load bearing concrete masonry units for items tested.

EQUIVALENT THICKNESS REQUIRMENTS FOR FIRE RESISTANCE *

Type of Coarse Aggregate	Minimum Equivalent Thickness** for Rating of:			
	4 Hour	3 Hour	2 Hour	1 Hour
Siliceous Gravel (Normal Weight)	6.2"	5.3"	4.2"	2.8"

* Based on Table 43-B, Uniform Buildign Code

** Equivalent thickness of a masonry unit is determined by dividing the net volume of the unit by the area of the face. The thickness of Gypsum Wallboard, Portland Cement Plaster, or 1.5 time the thickness of Gypsum Plaster applied to the wall may be included in determining equivalent thickness.