



St. Marys Cement Inc. (U.S.)
 Detroit Concrete Laboratory
 9333 Dearborn, Detroit, MI 48209
 Phone: 313-849-4571

Standard Specification for Load Bearing Concrete Masonry Units ASTM C90

Client: National Block Co.
 39000 Ford Road
 Westland, MI 48185

Job No: 0
 Project: 0

ASTM Unit Specification: ASTM C 90 - 97

Name / Description of unit: 8 inch stretchers
 Nominal CMU Dimensions:
 Width: 8.00 Height: 8.00 Length: 16.00

Notes:

SUMMARY OF ASTM C-140 TESTING

	REQUIRED	ACTUAL -
CMU Gross Area Compressive Strength.....	*****	1740 psi
CMU Net Compressive Strength.....	1900 min	3460 psi
Moisture Content.....	*****	34.2 %
Absorption.....	15 max.	9.3 pcf
Density (Oven Dry Condition).....	*****	124.2 pcf
Minimum Faceshell Thickness.....	1.25 min.	1.285 in.
Minimum Web Thickness.....	1 min.	1.035 in.
Equivalent Web Thickness.....	2.25 min.	2.44 in.
CMU Net Cross Sectional Area.....	*****	59.7 sq. in.
CMU Gross Cross Sectional Area.....	*****	119.2 sq. in.
CMU Percent Solid.....	*****	50.2 %
CMU Equivalent Thickness.....	*****	3.83 in.
Max. Variation From Specified Dimensions.....	0.125 max	0.095 in.

COMPRESSION

	Avg	Avg	Avg	Sample	Total	Compressive Strength	
	Width	Height	Length	Weight	Load	Gr Area	Net Area
	in	in	in	lb	lb	psi	psi
CMU # 1	7.635	7.60	15.62	34.10	216430	1815	3603
CMU # 2	7.635	7.59	15.63	33.50	209280	1754	3500
CMU # 3	7.62	7.63	15.62	33.70	196920	1655	3287
Average	7.63	7.60	15.62	33.77	207540	1741	3463

ABSORPTION AND DENSITY

	Width	Height	Length	Absorp	Density	Gr Vol	Net Vol
	in	in	in	pcf	pcf	cu ft	cu ft
CMU # 4	7.64	7.56	15.64	9.1	124.4	0.5224	0.2628
CMU # 5	7.63	7.60	15.63	9.5	124.0	0.5237	0.2628
CMU # 6	7.63	7.58	15.66	9.1	124.0	0.5241	0.2628
Average	7.63	7.58	15.64	9.3	124.2	0.5234	0.2628

Comments:



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Client: National Block
39000 Ford Road
Westland, MI 48185

Job No: 0
Project: 0

ASTM Unit Specification: ASTM C 90 - 97

Name / Description of unit: 12 inch Stretchers

Nominal CMU Dimensions:
Width: 12.00 Height: 8.00 Length: 16.00

Notes:

SUMMARY OF ASTM C-140 TESTING

	REQUIRED	ACTUAL
CMU Gross Area Compressive Strength.....	*****	1280 psi
CMU Net Compressive Strength.....	1900 min	2750 psi
Moisture Content.....	*****	34.0 %
Absorption.....	15 max.	8.9 pcf
Density (Oven Dry Condition).....	*****	123.6 pcf
Minimum Faceshell Thickness.....	1.5 min.	1.535 in.
Minimum Web Thickness.....	1.125 min.	1.155 in.
Equivalent Web Thickness.....	2.5 min.	2.83 in.
CMU Net Cross Sectional Area.....	*****	84.7 sq. in.
CMU Gross Cross Sectional Area.....	*****	181.9 sq. in.
CMU Percent Solid.....	*****	46.5 %
CMU Equivalent Thickness.....	*****	5.41 in.
Max. Variation From Specified Dimensions.....	0.125 max	0.065 in.

COMPRESSION

	Avg Width in	Avg Height in	Avg Length in	Sample Weight lb	Total Load lb	Compressive Strength	
						Gr Area psi	Net Area psi
CMU # 1	11.65	7.60	15.62	47.60	244120	1342	2880
CMU # 2	11.635	7.64	15.63	47.70	245820	1352	2898
CMU # 3	11.645	7.60	15.64	48.10	209490	1151	2489
Average	11.64333	7.61	15.63	47.80	233140	1282	2755

ABSORPTION AND DENSITY

	Width in	Height in	Length in	Absorp pcf	Density pcf	Gr Vol cu ft	Net Vol cu ft
CMU # 4	11.64	7.60	15.63	8.8	123.2	0.7999	0.3734
CMU # 5	11.65	7.60	15.61	8.8	122.9	0.7990	0.3750
CMU # 6	11.65	7.66	15.64	9.2	124.8	0.8066	0.3702
Average	11.64	7.62	15.62	8.9	123.6	0.8018	0.3729

Comments: