



SOLAR TESTING LABORATORIES, INC.

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NORLITE CORPORATION C330 EVALUATION

STL File No. A05374x12
 Report No 0003

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Samples of Norlite were delivered to this laboratory for material analyses in accordance with Specifications ASTM C330, C331, and C332. The test results are as follows:

AGGREGATE ANALYSIS

Sieve Size	% Passing (Passing Specification)			
	3/4 Norlite	3/8 Norlite	Norlite Block Mix	Norlite Fines
1"	100.0 (100)	---	---	---
3/4"	100.0 (90-100)	---	---	---
1/2"	73.6	100.0 (100)	---	---
3/8"	20.3 (10-50)	96.6 (80-100)	100.0 (100)	100.0 (100)
#4	1.3 (0-15)	30.6 (5-40)	95.9 (85-100)	100.0 (85-100)
#8	1.1	7.5 (0-20)	80.7	79.1
#16	1.0	4.1 (0-10)	55.0 (40-80)	42.6 (40-80)
#30	0.9	3.0	39.0	20.8
#50	0.8	2.4	29.2 (10-35)	10.0 (10-35)
#100	0.7	1.9	21.5 (5-25)	5.8 (5-25)
#200	0.7 (0-10)	1.5 (0-10)	15.4	3.9

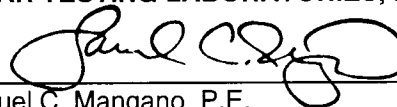
Fineness Modulus	7.00	5.54	2.79	3.42
Loose Unit Weight (Dry), pcf	37.30 (70 max)	43.60 (65 max)	49.20 (55 max)	45.80 (55 max)
Loose Unit Weight (Damp), pcf	37.90	46.90	59.60	56.60
Organic Impurities	Lighter than standard (Standard)	Lighter than standard (Standard)	---	---
% Loss, Sodium Sulfate Soundness (5 Cycles)	2.00	3.40	3.40	4.40
% Loss on Ignition (Dry Basis)	0.00 (5 max)	0.00 (5 max)	0.69 (5 max)	0.00 (5 max)
% Clay Lumps	0.20 (2 max)	0.40 (2 max)	0.00 (2 max)	0.00 (2 max)
Staining Index	20.00	0.00	0.00	0.00

Description	3/4 Norlite and Concrete Sand	3/8 Norlite and Concrete Sand
Concrete Mix Proportions (Mix Design)		
Cement Type 1, lb.	564	564
Lafarge Shalersville Sand, lb.(SSD)	1560	1563
3/4 Norlite, lb. (SSD)	756	---
3/8 Norlite, lb. (SSD)	---	801
Euco Air, oz/cwt	---	0.25
Water, lb./gal.	275/33.0	303/36.4
Slump, in	3.75	4.00
Air, %	5.50	6.00
Equilibrium Weight (ASTM C567-9.2),(24 hr.), pcf	113.60	109.80
Air Dry Weight (28-Day), pcf	119.00	115.10
Specification (Maximum), (28 day), pcf	115.00	115.00
Compressive Strength, psi		
7-Day Test	3,660	3,041
7-Day Test	3,778	2,925
7-Day Test	3,660	3,109
Average of 3 Tests	3,699	3,025
28-Day Test	5,074	4,925
28-Day Test	5,180	4,930
28-Day Test	5,195	4,936
Average of 3 Tests	5,150	4,930
Specification (Minimum), psi	4,000	4,000
56-Day Test	5,312	5,239
56-Day Test	5,484	5,292
56-Day Test	5,469	5,051
Average of 3 Tests	5,422	5,194
Tensile Splitting Strength (ASTM C496), psi		
28-Day Test	419	634
28-Day Test	514	541
28-Day Test	479	592
28-Day Test	454	501
28-Day Test	476	541
28-Day Test	539	572
28-Day Test	480	529
28-Day Test	436	493
Average of 8 Tests	475	550
Specification (Minimum), pcf	330	330
Modulus of Elasticity (ASTM C469)		
Average of 2 Cylinders	2,658,000	2,470,000
Shrinkage (ASTM C330), %		
35 Days (Specification: 0.07 Maximum)	0.042	0.051

These test results meet ASTM C330 specifications for lightweight aggregates. If you have any questions, please feel free to contact our office.

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