


Columbia University in the City of New York

DEPARTMENT OF CIVIL ENGINEERING AND ENGINEERING MECHANICS

Carleton Laboratory
(212) 280-3158, 280-4461

161 Engineering Terrace Building
New York, N.Y. 10027

DATE <u>May 20, 1985</u>	LAB TEST NO <u>85-65</u>
FOR <u>FELD, KAMINETZKY & COHEN, P.C.</u>	TESTED BY <u>L.P. Chen</u>
<u>125 Mineola Avenue</u>	WITNESS <u>M. Fradua - F, K & C</u>
<u>Roslyn Heights, N.Y. 11577</u>	<u>L. Millstein - Radcon</u>

REPORT OF TESTS

TEST SPECIMEN:

Two (2) cementitious panels with exposed aggregate and galvanized metal lath with sheetrock screws.

Panel # 1	26"	x 26 1/8"
Panel # 3	21 9/16"	x 22 5/16"

Both panels had been tested in this Laboratory as per Laboratory Reports of Tests # 85-05 & # 85-51 and were described there as Panel # 1 and Panel # 3.

TEST PROCEDURE:

1. RADCON sealant FORMULA # 7 was applied to the exposed aggregate face (panels were in vertical position during application) by brush and spraying by Radcon's Representative Dr. L. Millstein.
2. After allowing the sealant to dry, approximately 5 hrs, water was applied to the sealed side of the panel by floating the face to a depth approximately 1/4" for 30 minutes.
3. 21 Hours later the surface was again floated with water as before (1/4"); 30
4. A third similar floating was repeated 21 hours following the second.

The permeability tests were started 18 hours after third floating following procedure described in the Laboratory Report of Test # 85-05 of March 18, 1985

RESULTS: Water permeation in 24 hours is summarized in the attached tables.

TESTED BY
L.P. Chen
DATE
MAY 20 1985

PANEL # 1
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Time (Hrs)	VOLUME PERMEATED (cc) **		VOLUME PERMEATED (cc/in ²)	
	Since Start	Since Last Reading	Since start	Per Hour
1/2	513	513	.76	1.52
1	915	402	1.35	1.35
2	1618	703	2.38	1.03
3	2265	647	3.33	.95
4	2902	637	4.27	.94
5	3549	647	5.22	.95
6	4134	585	6.09	.86
7	4718	584	6.95	.86
8	5117	399	7.53	.59
24	16281	11164	23.97	1.03

* - corrected for evaporation

Observations: The water was dripping through only one (1) hole in the panel. The remaining surface felt dry. The drip from the panel's bottom was collected and weighted during first 8 hours of the test. Total weight of the drip water was 4643 cc.

PANEL # 3
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Time (Hrs)	VOLUME PERMEATED (cc) **		VOLUME PERMEATED (cc/in ²)	
	Since Start	Since Last Reading	Since start	Per Hour
1/2	29.7	29.7	.06	.12
1	39.2	9.5	.08	.08
2	98.6	59.4	.20	.12
3	98.6	0.0	.20	0.0
4	98.6	0.0	.20	0.0
5	104.7	6.1	.22	.01
6	104.7	0.0	.22	0.0
7	121.8	17.1	.25	.04
8	121.8	0.0	.25	0.0
24	121.8	0.0	.25	0.0

** - corrected for evaporation

6. Report "F"

Exposed Aggregate Test - Columbia University

This test was commissioned to find out if Radcon Formula #7 would seal exposed aggregate when used as fascia panels.

The test showed no penetration of water after 8 hours.

This test will be valuable when looking at the problems of swimming pools and patios that show leaks. It will alleviate the need to remove the cover of exposed aggregate to seal the leak.

This will lower the cost of repairs.