

Client: **Allied Construction Technologies, Inc.**  
 Project: **Allied Construction E96 Testing**  
 Contact: **Dawn Parnoff**

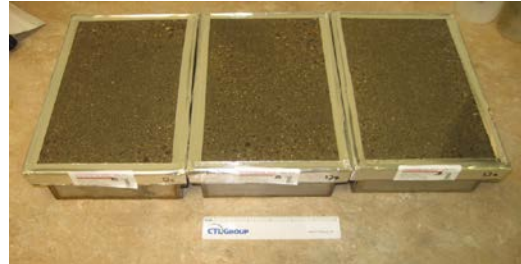
CTLGroup project no.: **281337**  
 CTLGroup project mgr.: **H. Kanare**  
 Analyst/Technician: **E. Rodenkirch/E. Alikadic**  
 Approved: **H. Kanare**  
 Report Date: **25-Oct-12**

**ASTM E96-10 Standard Test Method for Water Vapor Transmission of Materials**

**RESULTS**

AC-Tech 2170-12mils **0.094** net perms (grains h<sup>-1</sup> ft<sup>-2</sup> in Hg<sup>-1</sup>)

**SPECIMEN PHOTOGRAPH**



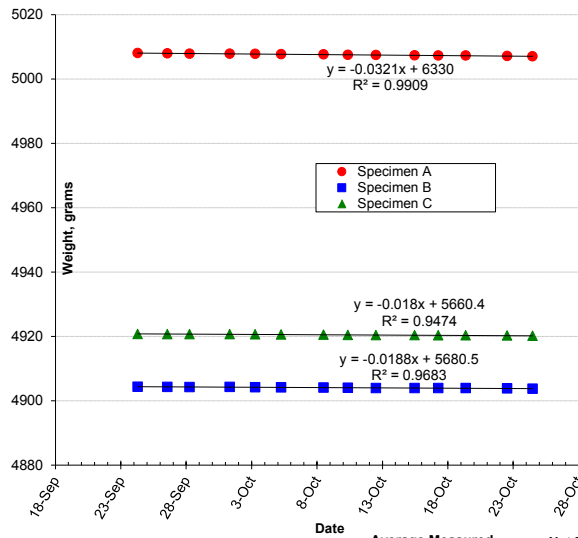
**SPECIMEN INFORMATION**

Client ID: **AC-Tech 2170-12mils**  
 CTLGroup ID: **3210102**  
 Material type: **Epoxy**  
 Concrete cast date: **6-Aug-12**  
 Moist cure: **3 days**  
 Drying: **29 days**  
 Surface Profile: **CSP-3**  
 Coating Applied: **7-Sep-12**  
 Concrete thickness, in.: **1-in.**  
 Avg. Coating thickness, in.: **0.012**  
 Exposed area, in<sup>2</sup>: **56.3**  
 Mix Ratio A:B (V:V): **2.35:1**  
 No. Coats: **1**  
 No. Grams/Coat: **14.8**  
 Balance: **EP6102C s/n M028112**  
 Last Calibration: **7-Feb-12**  
 Prepared by: **E. Alikadic**

**DATA COLLECTED**

Specimen A		Specimen B		Specimen C	
date	wt, grams	date	wt, grams	date	wt, grams
9/17/12 6:23	5008.23	9/17/12 6:23	4904.33	9/17/12 6:24	4920.80
9/19/12 6:14	5008.17	9/19/12 6:15	4904.32	9/19/12 6:15	4920.77
9/21/12 6:11	5008.16	9/21/12 6:12	4904.35	9/21/12 6:12	4920.77
9/24/12 6:54	5008.02	9/24/12 6:54	4904.31	9/24/12 6:55	4920.71
9/26/12 13:29	5007.94	9/26/12 13:30	4904.29	9/26/12 13:30	4920.64
9/28/12 6:14	5007.84	9/28/12 6:14	4904.23	9/28/12 6:14	4920.64
10/1/12 7:43	5007.83	10/1/12 7:44	4904.26	10/1/12 7:44	4920.68
10/3/12 6:24	5007.75	10/3/12 6:24	4904.19	10/3/12 6:25	4920.61
10/5/12 6:04	5007.66	10/5/12 6:04	4904.10	10/5/12 6:05	4920.56
10/8/12 11:54	5007.60	10/8/12 11:55	4904.08	10/8/12 11:55	4920.52
10/10/12 8:34	5007.48	10/10/12 8:34	4904.02	10/10/12 8:34	4920.41
10/12/12 11:59	5007.40	10/12/12 11:59	4903.92	10/12/12 12:00	4920.34
10/15/12 11:09	5007.34	10/15/12 11:09	4903.93	10/15/12 11:09	4920.34
10/17/12 6:22	5007.29	10/17/12 6:23	4903.90	10/17/12 6:23	4920.29
10/19/12 8:49	5007.25	10/19/12 8:49	4903.90	10/19/12 8:50	4920.31
10/22/12 12:47	5007.13	10/22/12 12:47	4903.82	10/22/12 12:48	4920.26
10/24/12 11:22	5007.00	10/24/12 11:23	4903.73	10/24/12 11:23	4920.16

**DATA GRAPH**



Results linear in boxed range used for calculations.

**CALCULATION OF RESULTS**

	Water Vapor Transmission, grams h <sup>-1</sup> m <sup>-2</sup>			Specimen A	Measured Permeance, Perms grains h <sup>-1</sup> ft <sup>-2</sup> in Hg <sup>-1</sup>		Average Measured Permeance, Perms grains h <sup>-1</sup> ft <sup>-2</sup> in Hg <sup>-1</sup> All Specimens	Net Perms, Corrected for Concrete Substrate grains h <sup>-1</sup> ft <sup>-2</sup> in Hg <sup>-1</sup>
	Specimen A	Specimen B	Specimen C		Specimen B	Specimen C		
AC-Tech 2170-12mils	0.037	0.022	0.021	0.13	0.074	0.071	0.091	0.094
Control Concrete	0.88	0.67	0.73	3.0	2.3	2.5	2.6	--
Aluminum Blanks	<0.001	<0.001	--	<0.01	<0.01	--	<0.01	--

**Notes**

- Water Method with coated side facing 50%RH/73°F and bottom side over water. Specimens exposed over 6.75 x 10.75 x 2.0-in. stainless steel flanged pans using SM5143 vacuum sealant tape. Results are specifically for these test conditions
- Permeance in PERMS (grains h<sup>-1</sup> ft<sup>-2</sup> in Hg<sup>-1</sup>) applies to specimens at thickness tested.
- Net permeance is calculated from the sum of the inverse perm values. These are a measure of resistance to moisture vapor movement: 1/Perm<sub>(total)</sub> = 1/Perm<sub>(concrete)</sub> + 1/Perm<sub>(coating)</sub>
- Uncoated concrete substrate (0.6 w/c) and aluminum blanks are used as control specimens.
- Calculation by least squares linear regression analysis per ASTM E96-10 Sect. 13.
- These results represent specifically the samples submitted for testing. This report may not be reproduced except in its entirety.