

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

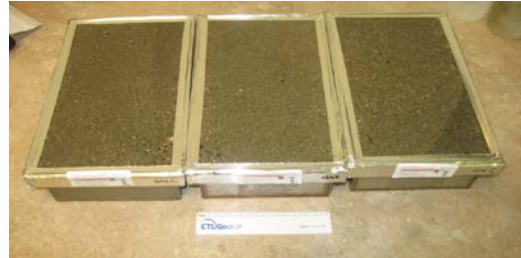
CTLGroup project no.: **281337**  
 CTLGroup project mgr.: **H. Kanare**  
 Analyst/Technician: **E. Rodenkirch/E. Alikadic**  
 Approved: **H. Kanare**  
 Report Date: **25-Oct-12**

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

**RESULTS**

**AC-Tech 2170 FC-12mils 0.072 net perms (grains h<sup>-1</sup> ft<sup>-2</sup> in Hg<sup>-1</sup>)**

**SPECIMEN PHOTOGRAPH**



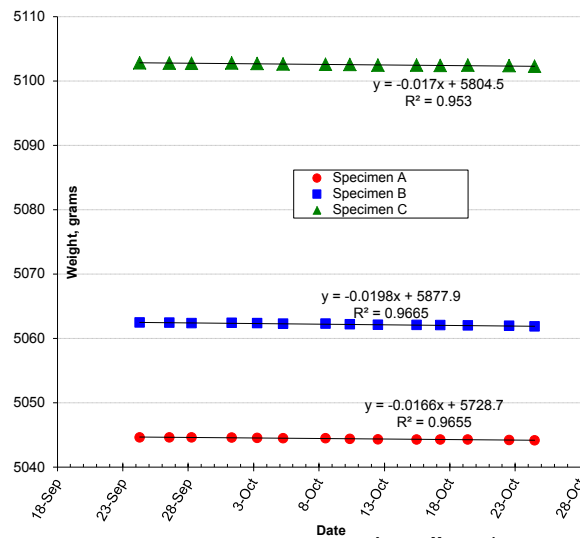
**SPECIMEN INFORMATION**

Client ID: **AC-Tech 2170 FC-12mils**  
 CTLGroup ID: **3210107**  
 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): **2.00:1**  
 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 6:25	5044.69	9/17/12 6:25	5062.55	9/17/12 6:26	5102.84
9/19/12 6:17	5044.61	9/19/12 6:18	5062.50	9/19/12 6:18	5102.80
9/21/12 6:13	5044.71	9/21/12 6:13	5062.52	9/21/12 6:14	5102.85
9/24/12 6:56	5044.61	9/24/12 6:57	5062.46	9/24/12 6:57	5102.79
9/26/12 13:31	5044.60	9/26/12 13:32	5062.44	9/26/12 13:32	5102.74
9/28/12 6:16	5044.59	9/28/12 6:16	5062.36	9/28/12 6:16	5102.72
10/1/12 7:45	5044.58	10/1/12 7:45	5062.42	10/1/12 7:46	5102.77
10/3/12 6:26	5044.53	10/3/12 6:26	5062.37	10/3/12 6:27	5102.70
10/5/12 6:06	5044.48	10/5/12 6:06	5062.27	10/5/12 6:06	5102.62
10/8/12 11:56	5044.46	10/8/12 11:56	5062.27	10/8/12 11:56	5102.56
10/10/12 8:36	5044.37	10/10/12 8:36	5062.17	10/10/12 8:36	5102.54
10/12/12 12:01	5044.29	10/12/12 12:01	5062.11	10/12/12 12:01	5102.45
10/15/12 11:10	5044.28	10/15/12 11:11	5062.07	10/15/12 11:11	5102.43
10/17/12 6:25	5044.27	10/17/12 6:25	5062.05	10/17/12 6:26	5102.40
10/19/12 8:54	5044.26	10/19/12 8:55	5062.01	10/19/12 8:55	5102.43
10/22/12 12:49	5044.20	10/22/12 12:49	5061.94	10/22/12 12:49	5102.36
10/24/12 11:24	5044.13	10/24/12 11:24	5061.86	10/24/12 11:25	5102.26

**DATA GRAPH**



Results linear in boxed range used for calculations.

**CALCULATION OF RESULTS**

	Water Vapor Transmission, grains 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>	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 A	Specimen B		
<b>AC-Tech 2170 FC-12mils</b>	<b>0.019</b>	<b>0.023</b>	<b>0.020</b>	<b>0.066</b>	<b>0.078</b>	<b>0.067</b>	<b>0.070</b>	<b>0.072</b>
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.