

**CLIENT:** Polycoat Products  
14722 Spring Ave,  
Santa Fe Springs, CA 90670

|                                 |                                |
|---------------------------------|--------------------------------|
| <b>Test Report No: TJ4139-5</b> | <b>Date: December 20, 2016</b> |
|---------------------------------|--------------------------------|

**REFERENCE:** Data collected under QAI Laboratories project number TJ4139-2

**SAMPLE ID:** Sample Identified as; **Aquaseal 5000-WC-GC-Horizontal**

**SAMPLING DETAIL:** Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

**DATE OF RECEIPT:** Samples were received at QAI on September 14, 2016.

**TESTING PERIOD:** October 21 – November 3, 2016

**AUTHORIZATION:** Testing was authorized by proposal 16SP0823 signed by, Hemant Prajapati, on September 9, 2016.

**TEST PROCEDURE:** ASTM E96-15, Standard Test Method for Water Vapor Transmission of Materials, Procedure B Water Method.

**TEST RESULTS:** Detailed test results are presented in the subsequent pages of this report.

**Prepared By**

**Signed for and on behalf of  
QAI Laboratories, Inc.**

  
**Rocky Hale**  
Materials Technician

  
**Joe Cavett**  
Project Manager

Testing was conducted in accordance with ASTM E 96/E96M-15, *Standard Test Methods for Water Vapor Transmission of Materials*, Procedure B for Water Method. Three (3) 3-inch circular specimens were prepared from the submitted material and assembled into test fixtures containing water. The test fixtures were maintained in an environment with a constant temperature of 73°F and 50% relative humidity. Weight measurements were recorded periodically after the test material had reached a steady state condition with relationship to change in weight vs. time. The water vapor permeance was then calculated as outlined in ASTM E 96.

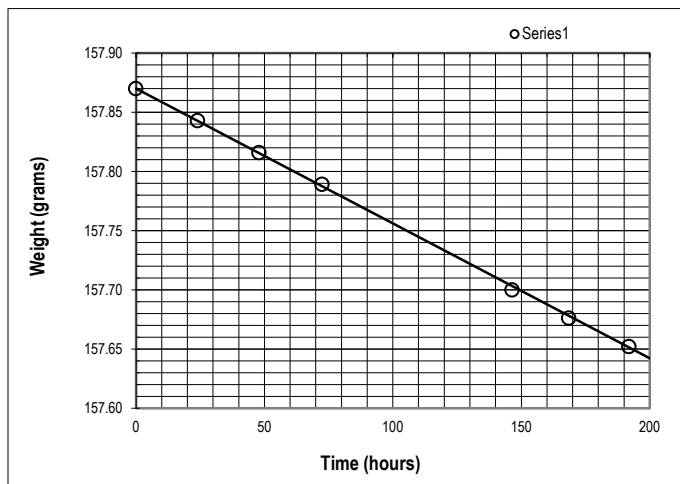
**Table 1- Results Terrashield WC-100 GC Horizontal**

| Date   | Time*<br>(clock) | C=          | 7.793   | D=     | 0.00503     | C=      | 7.793  | D=          | 0.00503 | C=     | 7.793      | D= | 0.00503 |
|--|------------------|-------------|---------|--------|-------------|---------|--------|-------------|---------|--------|------------|----|---------|
|  |                  | X-<br>hours | Y-grams | Slope  | X-<br>hours | Y-grams | Slope  | X-<br>hours | Y-grams | Slope  |            |    |         |
| 10/25  | 10:00 AM         | 0.00        | 157.870 | -----  | 0.00        | 170.007 | -----  | 0.00        | 173.222 | -----  |            |    |         |
| 10/26  | 10:00 AM         | 24.00       | 157.843 | 0.0011 | 24.00       | 169.977 | 0.0013 | 24.00       | 173.207 | 0.0006 |            |    |         |
| 10/27  | 10:00 AM         | 48.00       | 157.816 | 0.0011 | 48.00       | 169.952 | 0.0010 | 48.00       | 173.195 | 0.0005 |            |    |         |
| 10/28  | 10:45 AM         | 72.45       | 157.789 | 0.0011 | 72.45       | 169.931 | 0.0009 | 72.45       | 173.182 | 0.0005 |            |    |         |
| 10/31  | 12:30 AM         | 146.50      | 157.700 | 0.0012 | 146.50      | 169.854 | 0.0010 | 146.50      | 173.128 | 0.0007 |            |    |         |
| 11/1   | 10:30 AM         | 168.50      | 157.676 | 0.0011 | 168.50      | 169.833 | 0.0010 | 168.50      | 173.114 | 0.0006 |            |    |         |
| 11/2   | 10:00 AM         | 192.00      | 157.652 | 0.0010 | 192.00      | 169.812 | 0.0009 | 192.00      | 173.100 | 0.0006 |            |    |         |
| 11/3   | 10:00 AM         | 216.00      | 157.627 | 0.0010 | 216.00      | 169.790 | 0.0009 | 216.00      | 173.085 | 0.0006 |            |    |         |
| <b>Begin calculations @</b><br>hr:                   |                  | 0.00        |         |        | 0.00        |         |        | 0.00        |         |        | <b>AVG</b> |    |         |
| <b>End calculations @</b><br>hr:                     |                  | 216.00      |         |        | 216.00      |         |        | 216.00      |         |        |            |    |         |
| <b>E. Slope (gm/hr)</b>                              |                  | 0.00114     |         |        | 0.00100     |         |        | 0.00065     |         |        |            |    |         |
| <b>F. WVT (gm/m<sup>2</sup>/hr)</b><br>= E ÷ D       |                  | 0.360       |         |        | 0.315       |         |        | 0.129       |         |        | 0.293      |    |         |
| <b>G. WVT (gm/m<sup>2</sup>/24hr)</b><br>= F x 24    |                  | 8.63        |         |        | 7.56        |         |        | 4.90        |         |        | 7.029      |    |         |
| <b>H. WVT (gr/ft<sup>2</sup>/hr)</b><br>= G x 0.0596 |                  | 0.514       |         |        | 0.451       |         |        | 0.292       |         |        | 0.419      |    |         |
| <b>I. Perms** (gr/ft<sup>2</sup>/hr/inHg) =</b>      |                  | 1.240       |         |        | 1.086       |         |        | 0.704       |         |        | 1.010      |    |         |

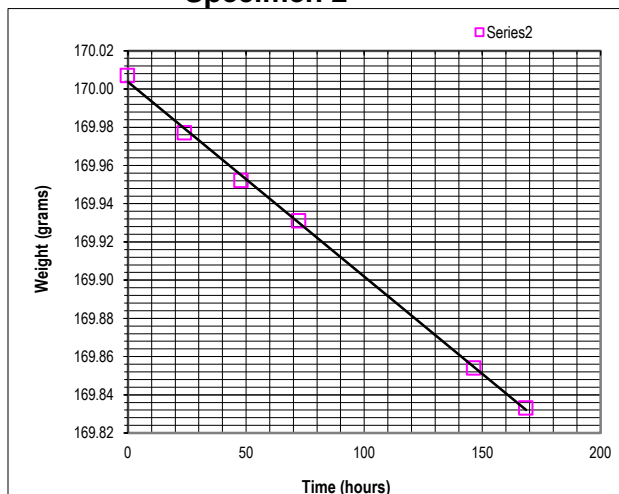
THIS REPORT IS THE CONFIDENTIAL PROPERTY OF THE CLIENT ADDRESSED. THE REPORT MAY ONLY BE REPRODUCED IN FULL. PUBLICATION OF EXTRACTS FROM THIS REPORT IS NOT PERMITTED WITHOUT WRITTEN APPROVAL FROM QAI. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED FOR THE INDIVIDUAL PROJECT FILE REFERENCED. THE RESULTS OF THIS REPORT PERTAIN ONLY TO THE SPECIFIC SAMPLE(S) EVALUATED.

**Terrashield WC-100 GC Horizontal**

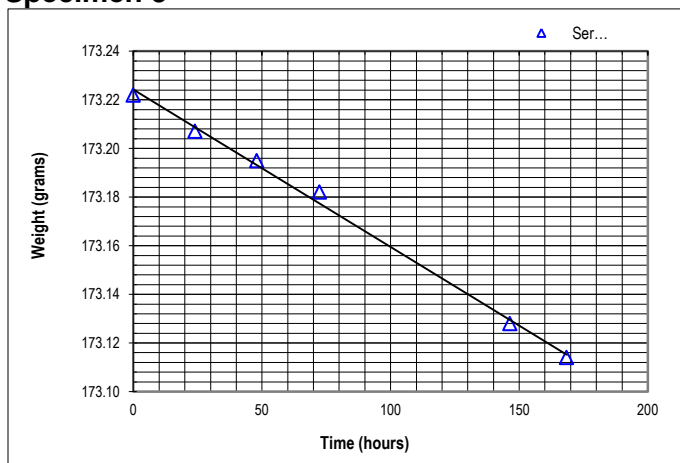
**Specimen 1**



**Specimen 2**



**Specimen 3**



**\*\*\* END OF TEST REPORT \*\*\***

THIS REPORT IS THE CONFIDENTIAL PROPERTY OF THE CLIENT ADDRESSED. THE REPORT MAY ONLY BE REPRODUCED IN FULL. PUBLICATION OF EXTRACTS FROM THIS REPORT IS NOT PERMITTED WITHOUT WRITTEN APPROVAL FROM QAI. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED FOR THE INDIVIDUAL PROJECT FILE REFERENCED. THE RESULTS OF THIS REPORT PERTAIN ONLY TO THE SPECIFIC SAMPLE(S) EVALUATED.