



# CONSTRUCTION MATERIALS

## TECHNOLOGIES

### LABORATORY TEST RESULTS

**Report for:** Acrysystems Laboratories, Inc.  
101 North Prospect Street  
Reading, PA 19606

**Attention:** Mitchell Weinberger

|  |   |
|--|---|
| <b>Product ID(s):</b> AcryLabs 2100<br>Elastomeric Coating | <b>Manufacturer:</b> Acrysystems Laboratory, Inc.   |
| <b>Date(s) Received:</b> Dec. 5, 2016                      | <b>Sampling:</b> Acrysystems Laboratory, Inc.       |
| <b>PRI-CMT Project No.:</b> ALI-002-02-01                  | <b>Date(s) Tested:</b> Dec. 8, 2016 – Feb. 14, 2017 |

**Subject:** Evaluate AcryLabs 2100 Elastomeric Coating for compliance with the requirements of **ASTM D 6083: *Standard Specification for Liquid Applied Acrylic Coating Used in Roofing*** and **Federal Specification TTC-555B *Test Specification for Wind Driven Rain Infiltration Resistance***.

**Test Methods:** Testing was completed as described in ASTM D 6083-05<sup>e1</sup>: *Standard Specification for Liquid Applied Acrylic Coating Used in Roofing*. Test methods assigned or referenced include: ASTM C 794: *Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants*; ASTM D 471: *Test Method for Rubber Property-Effect Liquids*; ASTM D 522: *Test Method for Mandrel Bend Test of Attached Organic Coatings*; ASTM D 903: *Test Method for Peel or Stripping Strength of Adhesive Bonds*; ASTM D 1653: *Test Method for Water Vapor Transmission of Organic Coated Films*; ASTM D 2370: *Test Method for Tensile Properties of Organic Coatings*; and ASTM D 4798: *Test Method for Accelerated Weathering Test Conditions and Procedures for Bitumen Materials (Xenon-Arc Method)* and ASTM G 21: *Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi*. In addition, testing was conducted in accordance with Fed Spec TTC-555B: *Test Specification for Wind Driven Rain Infiltration Resistance*.

**Product Sampling:** Sample was provided by Acrysystems Laboratory, Inc. from the Reading, PA manufacturing facility.

ALI-002-02-01 PRI-CMT Accreditations: IAS TL-189; Miami-Dade 14-1215.01; Florida TST5878; Los Angeles TA24819; CRRC

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**Results of Testing:**

| Property   | Test Method                            | Results | Requirement     |
|--|--|---------|-----------------|
| <b>Liquid Property Requirements</b>  |  |         |                 |
| Viscosity – Stormer-Type (KU)<br>Temperature @ 77°F  | ASTM D 562<br>Method A<br>Procedure A  | 131     | 85 - 141        |
| Load Required to produce 200rpm  |  | 799     | Report          |
| Viscosity – Brookfield-Type (cps)<br>LV series viscometer<br>Spindle #4; Speed 6rpm; Temperature 77°F  | ASTM D 2196<br>Method A                | 46,990  | 12,000 - 85,000 |
| Volume Solids (%)<br>Analyzed in duplicate   | ASTM D 2697                            | 53      | ≥ 50            |
| Weight Solids (%)<br>Analyzed in duplicate   | ASTM D 1644<br>Method A                | 67      | ≥ 60            |
| <b>Film Physical Property Requirements</b>   |  |         |                 |
| Tensile Properties<br>10 specimens; 3.0" long x 0.5" wide x 20mil dry film<br>Conditioned 336±12h @ 73.4±3.6°F & 50±10%RH<br>Test Speed 1.0±0.2"/min<br>Test Condition 73.4±3.6°F & 50±10%RH | ASTM D 2370                            |         |                 |
| Initial Percent Elongation (break) (%)   |  | 196     | ≥ 100           |
| Initial Tensile Strength (psi)   |  | 236     | ≥ 200           |
| Final Percent Elongation (break) (%)<br>Accelerated Weathering – 1,000h  |  | 173     | ≥ 100           |
| Permeance (perms)<br>3 specimens; 20mil dry film<br>Test Chamber @ 73.4±3.6°F & 50±10%RH<br>Tested in an inverted position   | ASTM D 1653<br>Method B<br>Condition A | 21.9    | ≤ 50            |
| Water Swelling (% mass)<br>3 specimens; 1" x 2" x 20mil dry film<br>Immersed in distilled water for 168±4h @ 73.4±3.6°F  | ASTM D 471                             | 9.2     | ≤ 20            |
| <i>Continued on the following page</i>   |  |         |                 |

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| Property  | Test Method                 | Results | Requirement                |
|---|-----------------------------|---------|----------------------------|
| Wet Adhesion to Specified Substrates<br>4 specimens; 1" wide x 20mil dry film<br>Conditioned 336±12h @ 73.4±3.6°F & 50±10%RH<br>Immersed in distilled water for 168±4h @ 73.4±3.6°F<br>Test Speed 2.0"/min<br>Test Condition 73.4±3.6°F & 50±10%RH    | ASTM C 794 /<br>ASTM D 1876 |         |                            |
| Wet Adhesion to Granule Surfaced SBS (pli)<br>direct to substrate   |                             | 5.2     | ≥ 2.0                      |
| Wet Adhesion to Smooth BUR (pli)<br>direct to substrate   |                             | 2.3     | ≥ 2.0                      |
| Wet Adhesion to PVC Single-Ply (pli)<br>direct to substrate   |                             | 6.8     | ≥ 2.0                      |
| Wet Adhesion to EPDM Single-Ply (pli)<br>direct to substrate  |                             | 3.3     | ≥ 2.0                      |
| Wet Adhesion to SPUF (pli)<br>direct to substrate   |                             | 6.0     | ≥ 2.0                      |
| Wet Adhesion to Concrete (pli)<br>direct to substrate   |                             | 6.2     | ≥ 2.0                      |
| Wet Adhesion to Wood (pli)<br>direct to substrate   |                             | 6.0     | ≥ 2.0                      |
| Wet Adhesion to Galvanized Steel (pli)<br>direct to substrate   |                             | 6.2     | ≥ 2.0                      |
| Wet Adhesion to Aluminum (pli)<br>direct to substrate   |                             | 3.4     | ≥ 2.0                      |
| Fungi Resistance (rating)   | ASTM G 21                   | 0       | 0                          |
| Tear Resistance (lbf/in)<br>3 specimens; Type C (Die C) x 20mil dry film<br>Conditioned 336±12h @ 73.4±3.6°F & 50±10%RH<br>Test Speed 20±2.0"/min<br>Test Condition 73.4±3.6°F & 50±10%RH   | ASTM D 624                  | 81      | ≥ 60                       |
| Low Temperature Flexibility [Pass/Fail]<br>2 specimens; 3" x 6" panels x 14mil dry film<br>Conditioned<br>72h @ 73.4±3.6°F & 50±10%RH followed by<br>120h @ 122°F<br>Accelerated Weathering - 1,000h<br>Tested 180° around 1/2" mandrel in 1s @ -15°F | ASTM D 522<br>Method B      | Pass    | Pass                       |
| Accelerated Weathering – 1,000h [Pass/Fail]   | ASTM D 4798                 | None    | No Cracking or<br>Checking |
| <i>Continued on next page</i>   |                             |         |                            |

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| Property  | Test Method | Results | Requirement |
|---|-------------|---------|-------------|
| <b>Wind Driven Rain Resistance: Federal Specification TT-C-555B, Section 4.4.7</b>  |             |         |             |
| Resistance to Wind Driven Rain <i>[Pass/Fail]</i><br>3 specimens; 8" x 16" panels x 20mil DFT<br>Conditioned at least 72h @ 73.4±3.6°F & 50±10%RH;<br>Test for 24h with 60-70gal/h and ΔP=5in <sub>w.c.</sub> ;<br>Visual Inspection for water leaks and/or moisture gain | TT-C-555B   | Pass    | Pass        |
| Weight Gain of Block (lb)   | TT-C-555B   | 0.0     | < 0.2       |

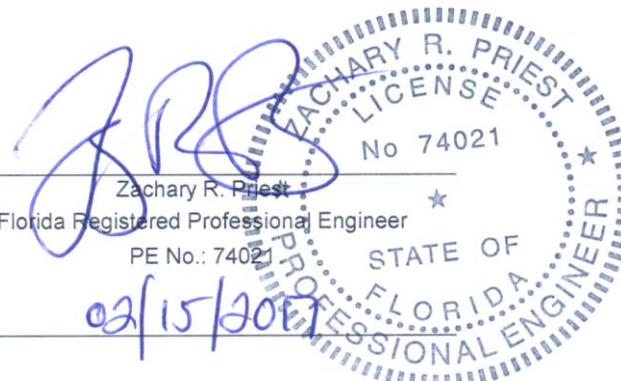
Note(s):

**Statement of Compliance:** This product complies with the requirements of **ASTM D 6083: *Standard Specification for Liquid Applied Acrylic Coating Used in Roofing*** and **Federal Specification TTC-555B *Test Specification for Wind Driven Rain Infiltration Resistance***.

Signed: \_\_\_\_\_

Zachary R. Priest  
 Florida Registered Professional Engineer  
 PE No.: 74021

Date: \_\_\_\_\_



**Report Issue History:**

| Issue #  | Date       | Pages | Revision Description (if applicable) |
|----------|------------|-------|--------------------------------------|
| Original | 02/15/2017 | 4     | NA                                   |

**END OF REPORT**

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