



## PRI Construction Materials Technologies LLC

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### Laboratory Test Report

**Report for:** Kamal Doshi  
Epilay Inc.  
21175 S. Main St., E-1 Unit C  
Carson, CA 90745

**Product Name:** ProtecKote HU-100

**Project No.:** 2490T0009  
2490T0010

**Date(s) Tested:** Mar. 7, 2024 – Apr. 15, 2025

**Test Method(s):** ASTM D6083-21

**Results Summary:** Compliant as Type I. See table for list of qualified substrates.

**Purpose:** Evaluate product for compliance with **ASTM D 6083: Standard Specification for Liquid Applied Acrylic Coating Used in Roofing.**

ProtecKote HU-100 is two-component roof and deck coating which upon curing forms a monolithic, flexible membrane.

**Test Methods:** Testing was completed as described in ASTM D6083-21: *Standard Specification for Liquid Applied Acrylic Coating Used in Roofing*. Test methods assigned or referenced include ASTM C794: *Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants*; ASTM D471: *Test Method for Rubber Property – Effect of Liquids*; ASTM D522: *Test Method for Mandrel Bend Test of Attached Organic Coatings*; ASTM D562: *Test Method for Consistency of Paints Using the Stormer Viscometer*; ASTM D624: *Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer*; ASTM D1644: *Test Method for Nonvolatile Content of Varnishes*; ASTM D1653: *Test Methods for Water Vapor Transmission of Organic Coating Films*; ASTM D2196: *Test Methods for Rheological Properties of Non-Newtonian Materials by Rotational (Brookfield) Viscometer*; ASTM D2370: *Test Method for Tensile Properties of Organic Coatings*; ASTM D2697: *Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings*; ASTM D4798: *Test Method for Accelerated Weathering Test Conditions and Procedures for Bitumen Materials (Xenon-Arc Method)*; and ASTM G21: *Practice for Determining Resistance of Synthetic Polymer Materials to Fungi*.

**Sampling:** The following materials were received by PRI.

<u>Product</u>	<u>Source</u>	<u>Date</u>	<u>Sampling</u>
ProtecKote HU-100	Umm al Quwain, UAE	Mar. 6, 2024	Epilay
ProtecKote HU-100	Umm al Quwain, UAE	Feb. 14, 2025	Epilay

2490T0010

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# Results:

Results:														Requirement Type I
Property	Test Method	Result												
Liquid Property Requirements														
Viscosity, Stormer-Type;	ASTM D562 Method A Procedure A	Load at 200rpm (gm)				Temperature (°F)				Viscosity (KU)				
		225				73				85				85 – 141
Viscosity – (cps) Brookfield-Type LV series viscometer Spindle #4; Speed 6rpm; Temperature 77°F	ASTM D2196 Method A													
		12 x 10 <sup>3</sup>												12 – 85 x 10 <sup>3</sup>
Volume Solids (%)	ASTM D2697	1				2				Avg.				
		51				51				51				≥ 50
Weight Solids (%)	ASTM D1644 Method A	1				2				Avg.				
		65				65				65				≥ 60
Film Physical Property Requirements														
Tensile Properties 3.0in long x 0.5in wide x 20mil dry film Cond. 336±12h @ 73±4°F & 50±10%RH Rate = 1.0±0.2in/min Test cond. 73±4°F & 50±10%RH	ASTM D2370	1	2	3	4	5	6	7	8	9	10	Avg.	Std.	
		Initial Percent Elongation (break) (%)												≥ 100
		Initial Tensile Strength (psi)												≥ 200
		Final Percent Elongation (break) (%) – After 1,000h A.W.												≥ 100
Permeance (perms) 20mil dry film Cond. 30±0.5days @ 73±4°F & 50±10%RH Test Chamber @ 73.4±3.6°F & 50±10%RH Tested in an inverted position	ASTM D1653 Procedure B Condition A	1		2		3		Avg.		Std.				
		9		10		10		10		0.4		≤ 50		
Water Swelling (% mass) 1in x 2in x 20mil dry film Cond. 336±12h @ 73±4°F & 50±10%RH Immersed in D.I. H <sub>2</sub> O 168±4h & 73±4°F	ASTM D471	1		2		3		Avg.		Std.				
		13		14		11		13		2		≤ 20		
Accelerated Weathering [Pass/Fail] 20mil dry film Cond. 336±12h @ 73±4°F & 50±10%RH Expose cond. 1,000h; Cycle A; 63±3°C; 0.35 W/m <sup>2</sup> -nm @ 340nm; Daylight filter	ASTM D4798/ D4798M													Pass = “No cracking or checking”
		Pass												Pass
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2490T0010

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Property	Test Method	Result						Requirement Type I
Wet Adhesion to Specified Substrates 1in wide x 20mil dry film Cond. 336±12h @ 73±4°F & 50±10%RH Immersed in D.I. H <sub>2</sub> O 168±4h & 73±4°F Rate = 2.0in/min Test cond. 73±4°F & 50±10%RH	ASTM C794 / ASTM D903	1	2	3	4	Avg.	Std.	
Galvanized Steel (pli)		4.7	3.8	2.2	4.1	3.7	1.0	≥ 2.0
PVDF (Kynar) coated metal (pli)		12.5	9.1	13.4	11.6	11.7	1.8	≥ 2.0
500h ASTM D4798 exposed BUR Smooth (pli)		2.9	2.6	3.3	3.6	3.1	0.4	≥ 2.0
SBS Mod-Bit Granulated (pli)		3.6	5.3	4.9	4.8	4.6	0.7	≥ 2.0
SPUF (pli)		6.5	4.2	3.8	5.4	5.0	1.2	≥ 2.0
Concrete (pli)		5.9	6.3	5.8	5.1	5.8	0.5	≥ 2.0
Clay roof tile (pli)		14.3	15.2	15.2	14.8	14.9	0.4	≥ 2.0
500h ASTM D4798 exposed EPDM Single-Ply (pli)		5.5	5.0	4.8	4.9	5.1	0.3	≥ 2.0
500h ASTM D4798 exposed PVC Single-Ply (pli)		10.3	11.5	8.7	8.3	9.7	1.5	≥ 2.0
500h ASTM D4798 exposed TPO Single-Ply (pli)		1.7	1.3	3.1	3.7	2.5	1.0	≥ 2.0
Fungi Resistance (rating) 2in x 2in x 20mil dry film The MicroStar Lab (Crystal Lake, IL) Test cond. 28d at 20 - 30°C & ≥ 85%RH	ASTM G21	1	2		3			
		0	0		0			0
Tear Resistance (lbf/in) Type C (Die C) x 20mil dry film Cond. 336±12h @ 73±4°F & 50±10%RH Rate = 20±2.0in/min Test cond. 73±4°F & 50±10%RH	ASTM D624	1	2	3	Median			
		121	139	124	124			≥ 60
Low Temperature Flexibility [Pass/Fail] 3in x 6in panels x 14mil dry film Cond. 72h @ 73±4°F & 50±10%RH & 120h @ 122°F Accelerated Weathering – 1,000h Test 180° over 0.5in Ø mandrel in 1s	ASTM D522/ D522M Method B	1	2					
	Test @ -15°F	Pass		Pass				Pass

Note(s): None.

#### 2490T0010

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**Statement of Compliance:** The product was tested complies with the Type I requirements of ASTM D6083-21: *Standard Specification for Liquid Applied Acrylic Coating Used in Roofing*. The laboratory test results presented in this report are representative of the materials supplied.

Signed: Anthony Catlett  
Anthony Catlett  
Manager

Date: 04/16/2025

Signed:

Zach Priest  
Florida Registered Professional Engineer  
P.E. Number: 74021

Date:

04/17/2025



**Report Issue History:**

Issue #	Date	Pages	Revision Description (if applicable)
Draft	04/15/2025	4	NA
Original	04/16/2025	4	NA

**END OF TEST REPORT**

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