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Laboratory Test Report

Report for: Angel Lopez
BCM America Inc.
13309 Country Club Drive
Tavares, FL 32778

Product Names: BCM SHIELD-TEC UNDERLAY

Project No.: 2797T0004

Dates Tested: October 1, 2025 – December 3, 2025

Test Methods: ASTM D8257

Results Summary: Compliant: Table 1 - Requirements for Polymeric Roof Underlayments

Purpose: Evaluate the identified product(s) for compliance with the physical requirements prescribed in ASTM D8257: *Standard Specification for Mechanically Attached Polymeric Roof Underlayment Used in Steep Slope Roofing*.

Test Methods: Testing was conducted in compliance with ASTM D8257/D8257M-20: *Standard Specification for Mechanically Attached Polymeric Roof Underlayment Used in Steep Slope Roofing*. Test methods referenced or utilized include ASTM D146/D146M: *Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing*, ASTM D228/D228M: *Test Methods for Sampling, Testing, and Analysis of Asphalt Roll Roofing, Cap Sheets, and Shingles Used in Roofing and Waterproofing* D751 *Test Methods for Coated Fabrics*, ASTM D1204: *Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheet or Film at Elevated Temperature*, ASTM D4533/D4533M: *Test Method for Trapezoid Tearing Strength of Geotextiles*, ASTM D4798/D4798M: *Practice for Accelerated Weathering Test Conditions and Procedures for Bituminous Materials (Xenon-Arc Method)*, ASTM D4869/D4869M: *Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing*, ASTM D5035: *Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)*, ASTM E96/E96M: *Test Methods for Water Vapor Transmission of Materials*, ASTM F1667 *Specification for Driven Fasteners - Nails, Spikes, and Staples*, ASTM G151: *Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources*, ASTM G155: *Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials*.

Sampling: The following materials were received via common carrier by PRI.

<u>Product</u>	<u>Source</u>	<u>Date</u>	<u>Sampling</u>
BCM SHIELD-TEC UNDERLAY	Tavares, FL	Aug. 26, 2025	BCM America Inc.

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Test Results:

Property	Test Method	Result							Requirement
Physical Requirements									
Unrolling, (Pass/Fail) 10in x 18in specimens; Cond. 24h @ 70±4°F & 50±-5%RH; Expose 24h at <i>temp</i> ; Unroll in 4-6s;	ASTM D8257 Section 7.2	1	2	3	4	Result		Pass = No visible cracking, tearing or delamination of underlayment	
	<i>Temp</i> =32°F	Pass	Pass	Pass	Pass	Pass		Pass	
	<i>Temp</i> =140°F	Pass	Pass	Pass	Pass	Pass		Pass	
Pliability, (Pass/Fail) 1in x 8in specimens; Conditioned for 24h @ 14±4°F; Bend 90° in 2s over ½" radius @14±4°F	ASTM D8257 Section 7.3	1	2	3	4	5	Result		Pass = No visible cracking or delamination of underlayment
	MD	Pass	Pass	Pass	Pass	Pass	Pass		Pass
	CMD	Pass	Pass	Pass	Pass	Pass	Pass		Pass
Moisture Vapor Permeance, (Perms) 5 specimens minimum; 3.5in Ø; Weathering side to ↑ vapor pressure; Test @ 73±4°F & 50±5%RH	ASTM D8257 Section 7.4 ASTM E96 Procedure B	1	2	3	4	5	Avg.	St.Dev.	
		0.1	0.0	0.1	0.1	0.1	0.1	0.0	Report
Liquid Water Transmission, (Pass/Fail) 14° slope; Cond. 24h @ 70-85°F & 30-55%RH; 40-42 gal/h shower exposure for 4h;	ASTM D8257 Section 7.5 ASTM D4869	1	2	Result					Pass = No wetness on either specimen underside or top of plywood and no visible deterioration
		Pass	Pass	Pass					
Linear Dimensional Change, (%) 10" x 10" specimens; Cond. 40h @ 73±4°F & 50±10%RH; Exposed for 24h @ 185±2°F; Cond. 1h @ 73±4°F & 50±10%RH	ASTM D8257 Section 7.6 / ASTM D1204	1	2	Avg.	St.Dev.				
	MD	-1.8	-1.1	-1.4	0.5	-2.5 to +1			
	CMD	-1.2	-1.4	-1.3	0.2	-2.5 to +1			
Tensile Strength (lbf/in) Type IC-E; 1in x 6in specimens; Cond. 2h @ 73±4°F; Cut Strip Method; Test @ 73±4°F & 50±5%RH; Gage length = 3in; Rate = 12in/min	ASTM D8257 Section 7.7 / ASTM D5035	1	2	3	4	5	Avg.	St.Dev.	
	MD	78	89	82	86	87	85	4.3	≥ 20
	CMD	46	50	55	53	50	51	3.4	≥ 20
	MD	77	84	81	83	86	82	3.3	≥ 20
	CMD	37	37	35	37	35	36	0.9	≥ 20
	MD	81	70	81	82	80	79	5.0	≥ 20
	CMD	45	47	54	47	46	48	3.6	≥ 20

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Property	Test Method	Result												Requirement
Tearing Strength (lbf/in) 3in x 8in specimens; Dry condition; Cond. 24h @ 73±4°F; Test @ 73±4°F & 50±5%RH; Gage length = 1in; Rate = 12in/min	ASTM D8257 Section 7.8 / ASTM D4533	1	2	3	4	5	Avg.		St.Dev.					
As Received	MD	34	40	39	37	40	38		2.6		≥ 15			
	CMD	31	34	28	28	31	30		2.2		≥ 15			
After Thermal Cycling	MD	36	40	38	39	42	39		2.4		≥ 15			
	CMD	32	34	30	32	32	32		1.3		≥ 15			
After Accelerated Aging	MD	34	46	39	39	39	39		3.6		≥ 15			
	CMD	28	29	30	34	29	30		2.5		≥ 15			
Fastener Pull- Through Resistance (lbf) 4in x 4in specimens; Cond. & Test @ 73±4°F & 50±5%RH; 1-1/2” long Galv. Roofing Nail; Gage length = 1in; Rate = 4in/min	ASTM D8257 Section 7.9 / ASTM D228	1	2	3	4	5	6	7	8	9	10	Avg.	St.Dev.	
As Received		50	43	43	43	39	45	47	47	43	44	45	2.9	≥ 25
After Thermal Cycling		50	51	49	54	61	47	51	52	52	50	52	3.8	≥ 25
After Accelerated Aging		47	39	43	44	43	41	44	39	41	50	43	3.5	≥ 25
Hydrostatic Resistance [Pass/Fail] 3in x 3in specimens; Test @ 73±4°F & 50±5%RH; Exposed to 1psi for 5min; Mullen type hydrostatic tester	ASTM D8257 Section 7.10 / ASTM D751 Procedure A-2	1		2		3		4		5		Result		Pass = No water shall pass through any specimen
As Received		Pass		Pass		Pass		Pass		Pass		Pass		Pass
After Thermal Cycling		Pass		Pass		Pass		Pass		Pass		Pass		Pass
After Accelerated Aging		Pass		Pass		Pass		Pass		Pass		Pass		Pass
Thermal Cycling [Pass/Fail] 8h @ 120±2°F followed by; 16h @ -40±2°F; Ten cycles	ASTM D8257 Section 7.11													Pass = No visible damage such as peeling, chipping, crazing, splitting, cracking, flaking or pitting
		Pass												Pass
Accelerated Weathering [Pass/Fail] Exposure 500h, ASTM D4798 Cycle A-1;	ASTM D8257 Section 7.12 / ASTM D4798 Cycle A-1													Pass = No visible damage such as peeling, chipping, crazing, splitting, cracking, flaking or pitting
		Pass												Pass

Note(s): None

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Statement of Compliance: The product tested complies with the physical requirements prescribed in ASTM D8257: *Standard Specification for Mechanically Attached Polymeric Roof Underlayment Used in Steep Slope Roofing*. The laboratory test results presented in this report are representative of the material(s) tested.

Signed:



Jason Simmons
Vice President

Date:

02/13/2026

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	02/13/2026	5	NA

END OF REPORT

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