



PRI Construction Materials Technologies LLC

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Laboratory Test Report

Report for: Steven Crew
Warrior Roofing Manufacturing
3050 Warrior Rd.
Tuscaloosa, AL

Product Name: Elephant Skin

Project No.: 976T0002

Date(s) Tested: April 22, 2020 – May 25, 2020

Test Method(s): ASTM E 96
Procedure B (Wet Cup)

Results Summary: See attached data table illustrating results of testing

Purpose: Evaluate the water vapor permeability of the referenced product per the methods outlined in ASTM E96: *Test Methods for Water Vapor Transmission of Materials*.

Per the client's request, PRI-CMT conducted testing for water vapor transmission of the client supplied, synthetic underlayment.

As described in the proposed ASTM specification for synthetic, polymeric underlayments, testing was conducted on material both before and after weathering for 500h in accordance with ASTM D4798 Cycle A-1

Test Methods: Testing for water vapor permeability was conducted in accordance with ASTM E96 / E96M-15: *Standard Test Methods for Water Vapor Transmission of Materials*. Testing was performed on smaller specimens excised from the larger supplied film and sealed to the test cups using wax. Testing was performed in accordance with procedure B (wet cup).

Sampling: The following materials were received by PRI.

<u>Product</u>	<u>Source</u>	<u>Date</u>	<u>Sampling</u>
Elephant Skin	Tuscaloosa, AL	Feb. 24, 2020	Warrior Roofing Manufacturing

Specimens Test specimens were excised from the larger client supplied samples and sealed along the sides to the test cups with wax.

Testing Location: Testing was conducted at PRI-CMT located in Tampa, FL. Calibration of testing instrumentation was performed by a PRI-CMT representative in compliance with PRI-CMT In-House quality control program governed by ISO/IEC 17025-05.

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Results

Property	Test Method	Results					Requirement
		#1	#2	#3	Avg	St Dev	
Synthetic underlayment As Received; Water Method; Test @ 73.4±1.8°F & 50±2 % RH	ASTM E 96 (Procedure B)						
	Thickness (mil)	7	7	8	7.3	0.6	Report
	WVT (grains/h-ft²)	0.006	0.012	0.012	0.010	0.003	Report
	Permeance (Perms)	0.02	0.03	0.03	0.02	0.0008	Report
Synthetic underlayment Weathered (500h ASTM D4798) Water Method; Test @ 73.4±1.8°F & 50±2 % RH	ASTM E 96 (Procedure B)						
	Thickness (mil)	8	7	7	7.3	0.6	Report
	WVT (grains/h-ft²)	0.008	0.008	0.009	0.009	0.0008	Report
	Permeance (Perms)	0.02	0.02	0.02	0.02	0.002	Report

Note(s) None

Statement of Attestation: The water vapor transmission of the material was determined in accordance with ASTM E 96: *Standard Test Methods for Water Vapor Transmission of Materials* as described herein. Procedure B was utilized. The laboratory test results presented in this report are representative of the material supplied.

Signed:



Jason Simmons
Director

Date:

July 6, 2020

END OF REPORT

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