ExcelPlas

TEST REPORT

TECHNICAL REPORT ON THE MEASUREMENT OF PERMEANCE ON UNDERLAY MATERIAL

Client: Clever Choice Design Floors

1/164 Adderley St W, Auburn New South Wales 2144

ExcelPlas Job # 10686

P.O. Box 147, Moorabbin, VIC 3189
www.excelplas.com

11 March 2021

COMMERCIAL-IN-CONFIDENCE

1. Objective

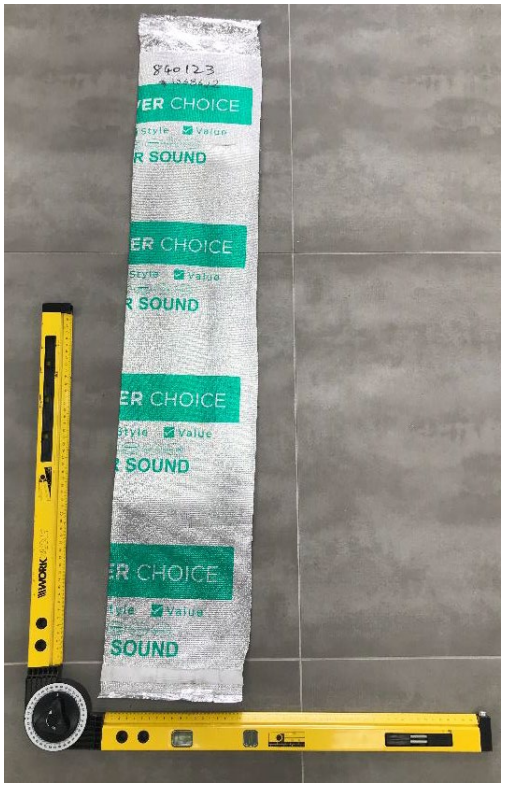
The objective of this study is to measure the permeance of an underlay material.

2. Samples Supplied

A sample of Foil membrane- EVA foam was supplied by Amanda Pavlovic admin@cleverchoice.com.au for determination of the water vapour permeance.

The identification of the sample was:

#10686/2:
Underlay Sound Acoustic 2.5mm EVA (Silver Foil)



3. Testing Undertaken

The water vapour permeance testing was undertaken according to ASTM E 96.

4. Method of Sampling.

Water vapour permeance specimens were cut from the sample supplied.

5. Testing Methodology

The water vapour permeance testing was conducted according to the procedure described in ASTM E 96.

Test method used: Water

Test temperature: 23C +- 2C

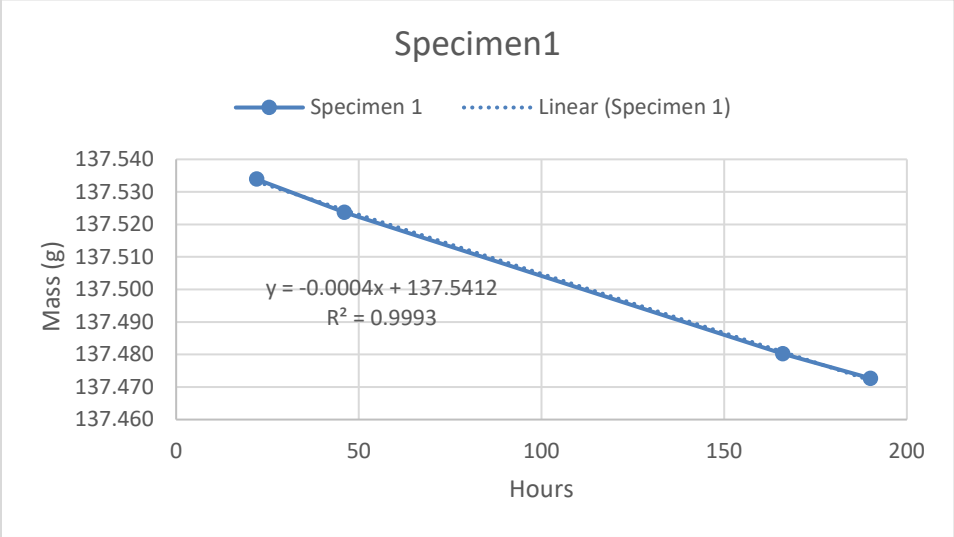
Relative Humidity 50% +- 10%

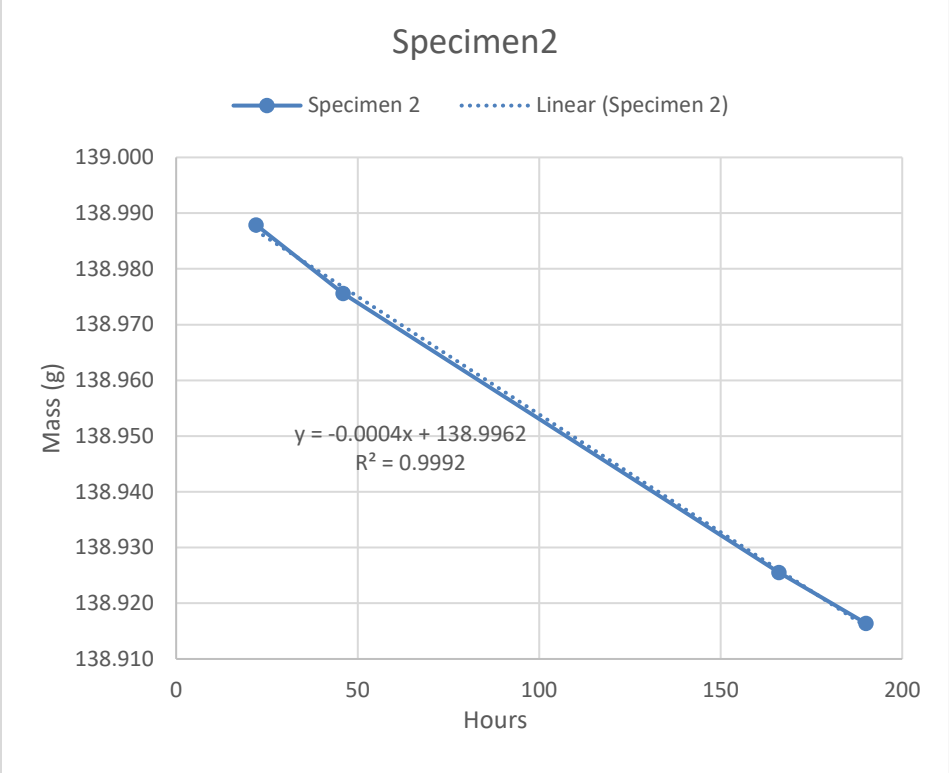
Side of sample in contact with water: Side with foil layer in contact with water

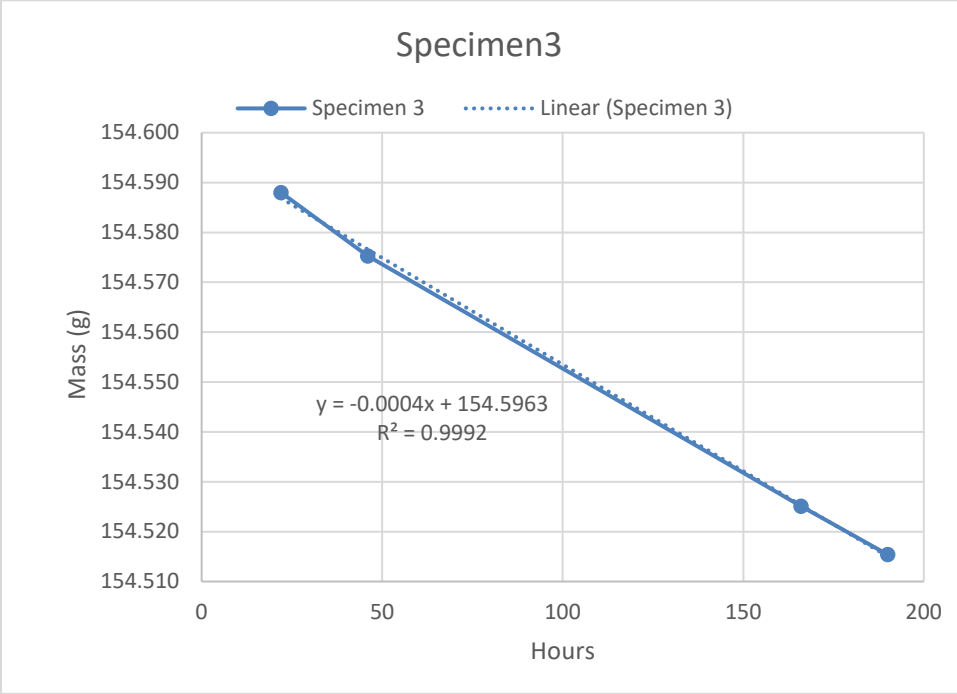
6. Results

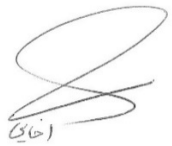
Client:	**Clever Choice Design Floors**
ExcelPlas Job Number:	# 10686
Sample Identification	840123
Sample Roll/Batch/Lot Number	N/A
Sample Thickness	2.54 mm
Test Method	Water
Test Temperature	22 °C
Relative Humidity in the Test Chamber	56 % R.H.
Mean Water Vapour Transmission Rate	0.06361 g/h.m^2
Water Vapour Transmission Rate Standard Deviation	0.0055 g/h.m^2
Mean Permeance	0.00021 ng/m^2sPa
Permeance Standard Deviation	0.0000186 ng/m^2sPa

Example of portion of the plots used to calculate permeability. Line of best-fit curve was extrapolated as shown in below curves.






Specimen3
Specimen 3
Linear (Specimen 3)
154.600
154.590
154.580
154.570
154.560
154.550
154.540
154.530
154.520
154.510
Mass (g)
y = -0.0004x + 154.5963
R² = 0.9992
0
50
100
150
200
Hours

Prepared By	Reviewed By
	
Date: 11 March 2021	Date: 11 March 2021
Nazanin Akhaei B.S. Polymer Industries Eng. Laboratory Technician ExcelPlas Pty. Ltd.	Brett Webb, B App Sci. Laboratory Technician ExcelPlas Pty. Ltd.

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