



IPS TESTING

Revision 1 of Test Report
March 16, 2022
Page 1 of 7
SGS-IPS 02235-21

Report to: Loyal Dodd
Basecrete Technologies LLC
7969 Moyer Ave
Sarasota, FL 34240

Sample Description: **One Poly Modified Micro Topping Sample**

Date Received: December 17, 2021

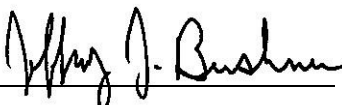
Test(s) Requested: Thickness, WVTR - Water (ASTM E96/E96M)

PO Number: Credit Card

Analysis of One Poly Modified Micro Topping Sample

SGS-IPS Testing performed the testing listed above on one poly modified micro topping sample provided by and identified by Basecrete Technologies LLC, or by a third party acting at the Client's direction. Please note, per customer agreement, the specimens were sanded down to create the required 3-inch circle specimens for testing. This report has been revised to include thickness testing to calculate Average Permeability. Results are summarized in Table 1 on the following pages of this report and in Chart 1 at the end of this report.

If you have any additional questions, please contact us.

Authorized by 
Jeffrey J. Bushner
Lab Manager

Signed 
Andrew Smits
Senior Lab Technician
Physical Testing
920-749-3040

Table 1. Physical Properties

Orientation	One Modified Micro Topping Sample	
	Top	Side B
Water Vapor Transmission - Water (ASTM E96/E96M)		
Area (m ²)	0.003166	NA
Weight Change/Time (g/hour)		
1	0.00327	NA
2	0.00589	NA
3	0.00679	NA
Average	0.00531	NA
Std. Dev.	0.001828	NA
Maximum	0.00679	NA
Minimum	0.00327	NA
n=	3	NA
WVTR (g/(h*m ²))		
1	1.0	NA
2	1.9	NA
3	2.1	NA
Average	1.7	NA
Std. Dev.	0.58	NA
Maximum	2.1	NA
Minimum	1.0	NA
n=	3	NA
WVTR (g/m ² /day)		
1	25	NA
2	45	NA
3	51	NA
Average	40	NA
Std. Dev.	13.9	NA
Maximum	51	NA
Minimum	25	NA
n=	3	NA
Vapor Pressure Difference (Pa)	1400	NA

Table 1. Physical Properties (contd.)

Orientation	One Modified Micro Topping Sample	
	Top	Side B
Permeance (g/(s*m ² *Pa))		
1	2.0E-7	NA
2	3.7E-7	NA
3	4.2E-7	NA
Average	3.3E-7	NA
Std. Dev.	1.14E-7	NA
Maximum	4.2E-7	NA
Minimum	2.0E-7	NA
n=	3	NA

Parafilm was used to seal the edges during testing.
 There was trouble removing the labels on the specimens for testing, there was some residual adhesive left on the specimens during testing.

Thickness

Thickness (in)

Average	0.261
Std. Dev.	0.0163
Maximum	0.283
Minimum	0.247
n=	4

Thickness (mm)

Average	6.64
Std. Dev.	0.413
Maximum	7.18
Minimum	6.27

Average Permeability (g*mm/(s*m²*Pa)) - Calculated from ASTM E96*

Average	2.2E-06
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*Note: ASTM E96 states that Average Permeability is not applicable for specimens less than 12.5mm thick.

Method(s) and Notes:

All valid results are included in the statistical analyses.

Revisions of SGS-IPS methods when used are current at the time of testing.

Sample(s) tested and conditioned in TAPPI standard conditions when conditioning is required by method, unless requested otherwise by customer, or otherwise specified.

Samples were not preconditioned.

ASTM E 96/E 96M - 16 Standard Test Methods for Water Vapor Transmission of Materials

Aluminum cups with O-ring seals were used.

The exposed surface area is 0.034 ft² (0.00316 m²).

Corrections for buoyancy and resistance due to Still Air and specimen surface were not done.

SGS-IPS always runs to an equilibrium slope and does not use a dummy cup as a proxy for equilibrium measurement.

Cups filled with 100ml of deionized water.

Thickness

Specimens were tested using a granite base swivel platen with a 2" diameter foot.

Test pressure is 4.1kPa with a 2 second dwell time. Specimens were rigid with uneven surfaces.

Analyzed by: ATS, MAG

Quality review by: TFH, JVP

Date(s) of testing: December 31, 2021-March 15, 2022

Room Conditions

	Relative Humidity (%)	Temperature (°F)
Conditioning Environment	50.0	73.9
Maximum	50.1	73.9
Minimum	50.0	73.9

Note: See the method(s) cited above for available estimates of measurement uncertainty. Unless otherwise noted, sampling was performed by customer. Sample information is provided and confirmed by the client. SGS is not liable for the accuracy, suitability, reliability and/or integrity of the information.

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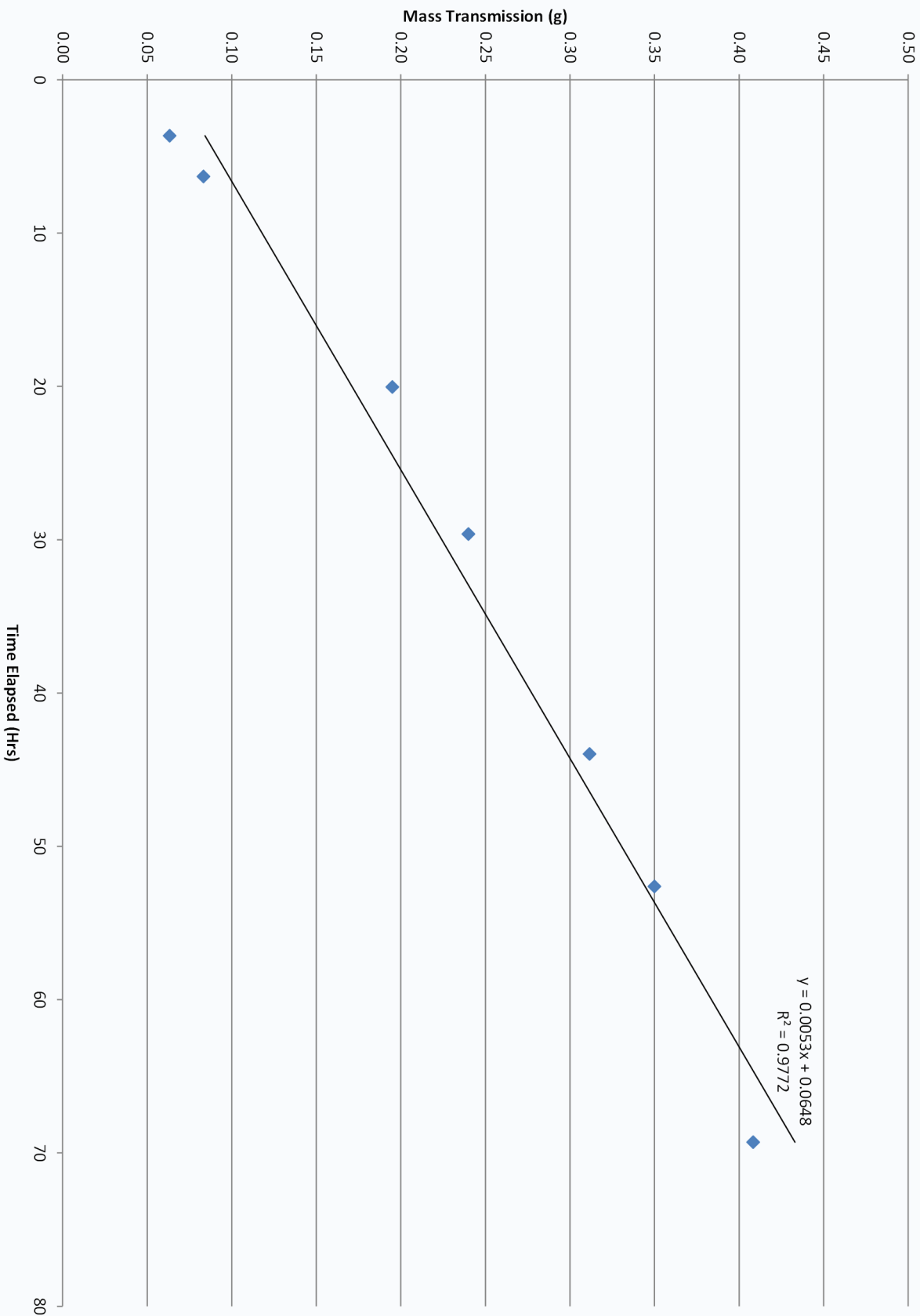
Appendix A



Figure 1. Login Sample Photos One Modified Micro Topping Sample

Appendix B

WVTR at 23.1 °C and 49.3 %RH



◆ AVG-One Modified Micro Topping Sample

Chart 1