SGS IPS TESTING

Report to: Justin DeAtley
Polyconversions, Inc.
3202 Apollo Dr.
Champaign, IL 61822

Sample Identification: **Four Gown Samples**

Date Received: May 6, 2020

Test(s) Requested: Blood Penetration Resistance, Water Resistance: Impact Penetration, Water Resistance: Hydrostatic Pressure

PO Number: Credit Card

Analysis of Four Gown Samples

SGS-IPS Testing performed the testing listed above on four gown samples provided by Polyconversions, Inc. The results are listed in Tables 1 through 3 on the following pages.

If you have any questions, please contact us.

Authorized by Rhonda J Mesko
Rhonda J Mesko
Laboratory Manager

Signed Eric Belter
Eric Belter
Lab Technician
Analytical Services
920-749-3040

Table 1. Water Resistance: Impact Penetration

	12620	10520	11500	42500
		AT-1659		
Water Penetration (g)				
1	0.5	0.1	0.3	0.9
2	1.1	0.0	0.0	2.6
3	0.1	0.0	1.0	0.1
Average	0.6	0.0	0.4	1.2
Std. Dev.	0.48	0.03	0.47	1.29
Maximum	1.1	0.1	1.0	2.6
Minimum	0.1	0.0	0.0	0.1
n=	3	3	3	3
Test Parameters				
Temperature (°C)	26.7	26.7	26.7	26.7

Test Side: Outside
Blotter Lot: 112645

Table 2. Blood Penetration Resistance

	12620	10520	11500	42500
		AT-1659		
Test Side	Outside	Outside	Outside	Outside
Resistance to Blood Penetration (Pass/Fail)				
1	Pass	Pass	Pass	Pass
2	Pass	Pass	Pass	Pass
3	Pass	Pass	Pass	Pass
Resistance to Blood Penetration Summary	3 Pass / 0 Fail	3 Pass / 0 Fail	3 Pass / 0 Fail	3 Pass / 0 Fail
Procedure	B	B	B	B
Lot Number	308201	308201	308201	308201

Table 3. Water Resistance: Hydrostatic Pressure

	12620		10520		11500		42500	
Orientation	Outside	SdB	Outside	SdB	Outside	SdB	Outside	SdB
Hydrohead (mbar)								
1	179	NA	88.2	NA	88.7	NA	274	NA
2	188	NA	96.8	NA	91.5	NA	272	NA
3	190	NA	105	NA	83.0	NA	250	NA
Average	186	NA	96.7	NA	87.7	NA	265	NA
Std. Dev.	5.9	NA	8.40	NA	4.33	NA	13.3	NA
Maximum	190	NA	105	NA	91.5	NA	274	NA
Minimum	179	NA	88.2	NA	83.0	NA	250	NA
n=	3	NA	3	NA	3	NA	3	NA
Hydrohead (cm of H_2O)	189	NA	98.6	NA	89.5	NA	271	NA
Test Parameters								
Temperature (°C)	22.1	NA	22.0	NA	22.0	NA	22.0	NA
Test Pressure Limit (mbar)	1000	NA	1000	NA	1000	NA	1000	NA
Failure Type*	Burst	NA	3 Drops	NA	3 Drops	NA	Burst	NA

AT-1659

*Specimen 3 failure type for sample 10520 was a burst.

Gradient: 60 mbar/min
Water Type: Deionized Water

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.
Samples tested and conditioned in TAPPI standard conditions unless requested otherwise by customer.
Samples were not preconditioned.

AATCC 42-2017 Water Resistance: Impact Penetration Test
Type II Impact Penetration Tester was used for this testing.
Samples conditioned in TAPPI standard conditions unless requested otherwise by customer.
The estimated k=2 uncertainty for AATCC 42 is calculated and available on request.
Spray head has a hole in the center, funnel is plastic instead of glass.
Blotter papers used: Ahlstrom Grade 989.
ASTM F 1670/F 1670M - 17a Standard Test Method for Resistance of Materials Used In

Protective Clothing to Penetration by Synthetic Blood
- Test specimens are cut from the samples provided, and customer retains detailed sample information.
- For Method B the retaining screen used is 11 x 11 Nylon Mesh.
- Synthetic blood is purchased from Johnson, Moen & Co. Surface tension is not independently verified after receipt and unused synthetic blood is stored in original plastic bottles.
- SGS-IPS does not measure specimen weight or thickness.
- If synthetic blood penetration is not visually observed, samples are gently wiped with a clean cotton swab to determine if penetration occurred.

AATCC Test Method 127-2017 Water Resistance: Hydrostatic Pressure Test
- Option 2, Hydrostatic Head Tester.
- Samples conditioned in TAPPI standard conditions unless requested otherwise by customer.

Analyzed by: TH, EB, AS
Quality review by: EB, AS
Date(s) of testing: May 14-15, 2020

Room Conditions

	Relative Humidity (%)	Temperature (°F)
Conditioning Environment	50.0	73.4
Maximum during testing Minimum during testing	51.1 50.0	73.4 73.4

Note: See the method(s) cited above for available estimates of measurement uncertainty. Unless otherwise noted, sampling was performed by customer.