

ISO/IEC 17025 Certified Third Party Test Report

DATE: April 3, 2020

FILE: PRECIS.A033120D

CLIENT:

ATTN: Gary Narayan

SAMPLE IDENTIFIED BY CLIENT AS:

Fabric Submitted
Name: Protect 4
Color White

BLUE LABEL SERVICE

TEST PROCEDURES:

**RESISTANCE OF MATERIALS IN PROTECTIVE CLOTHING
TO PENETRATION BY SYNTHETIC BLOOD (ASTM F 1670-B):**

Sample	Result
D	Pass

Uniform results done in triplicate.

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**VIRAL PENETRATION, RESISTANCE OF MATERIALS USED
 IN PROTECTIVE CLOTHING TO PENETRATION BY BLOODBORNE PATHOGENS
 (ASTM F1671), PROCEDURE B, USING NYLON MESH RETAINING SCREEN:**

Viral penetration was tested for using a ϕ X174 bacteriophage suspension for 60 minutes. At the end of the test, the observed side of the test sample was rinsed with sterile medium and assayed for the presence of ϕ X174 bacteriophage.

Executive Summary:

Compatibility ratio for D tested in triplicate was 0.9 (i.e., exposure of virus to the test sample for 1 h did not affect the virus titer).

Settle plates (two from hood and two from bench) showed no plaques, indicating the absence of aerosol bacteriophage spread. Testing of test cells before exposure to virus was uniformly negative for virus showing the absence of test cell contamination. **Sample D is therefore a PASS.**

Test Article (each in triplicate)	Pre-Challenge (PFU ^a /ml)	Post-Challenge (PFU/ml)	Test Cell wash (5ml) Bacteriophage Penetration (PFU/ml)	Visual Penetration	Test Result
D	4.0 x 10 ⁸	4.2 x 10 ⁸	0	No	Pass
Impermeable control	4.0 x 10 ⁸	4.2 x 10 ⁸	0	No	Pass
Permeable control	4.0 x 10 ⁸	4.0 x 10 ⁸	>200	Yes	Fail (expected)

^a PFU: plaque-forming units

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APPENDIX:

Level	Test	Liquid Challenge	Result	Expected Barrier Effectiveness
1	AATCC 42 Impact Penetration	Water	= 4.5 g	Minimal water resistance (some resistance to water spray)
2	AATCC 42 Impact Penetration	Water	= 1.0 g	Low water resistance (resistant to water spray and some resistance to water penetration under constant contact with increasing pressure)
	AATCC 127 Hydrostatic Pressure	Water	= 20 cm	
3	AATCC 42 Impact Penetration	Water	= 1.0 g	Moderate water resistance (resistant to water spray and some resistance to water penetration under constant contact with increasing pressure)
	AATCC 127 Hydrostatic Pressure	Water	= 50 cm	
4	ASTM F1670 Synthetic Blood Penetration	Surrogate Blood	No Penetration at 2 psi (13.8 kpa)	Blood and viral penetration resistance (2 psi)
	ASTM F1671 Viral Penetration	Bacteriophage Virus		

Signed For The Company By

Joseph Lin
Laboratory Manager




Stacy Sadowy
Quality Assurance Manager

JG/04