



BIOTECH TESTING SERVICES

TEST REPORT

LAB NO. : 1901288/ 1 - 3

DATE: 18/09/2019

NAME OF CUSTOMER : M/S. STYLAM INDUSTRIES LIMITED
ADDRESS : SCO 14, Sector 7C Madhya Marg, Chandigarh
India
REFERENCE : Your Letter Ref: Nil dated September 02, 2019
Kind Attention: Nitish Kanwar
DATE OF RECEIPT : 06/09/2019
DATE OF INITIATION : 06/09/2019 & 12/09/2019
DATE OF COMPLETION : 10/09/2019 & 18/09/2019
SAMPLE DESCRIPTION : High Pressure Laminates labeled as -
Design No: HPL D. No 1020

Sr. No.	Sample Code
1.	Sample A
2.	Sample B
3.	Untreated
-	Lab. Control

Name of Test:

Evaluation of Antimicrobial Activity of Laminate sample

Name of Test Protocol:

JIS Z 2801: 2010

Test Organisms used for evaluating Antimicrobial activity:

1. Staphylococcus aureus ATCC 6538
2. Escherichia coli ATCC 8739
3. Pseudomonas aeruginosa ATCC 9027

Test Conditions:

Neutraliser used : Buffered Saline with Tween 80 - 0.01 %
Contact Time : 24 hours at 37° C
Incubation Temperature : 37° C for Bacteria
Media and Reagent : Soyabean-casein digest agar for Bacteria

• Samples are not drawn by the laboratory • Result relate only to the samples tested
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Results:
ANTIBACTERIAL ACTIVITY
1. Test Bacteria: Staphylococcus aureus ATCC 6538

Quantitative Assessment of Activity - JIS Z 2801: 2010				
Control : Conc. of Inoculum on untreated sample at 0 hours (A): 1.69×10^5				Log = 5.22
Control : Conc. of Inoculum on untreated sample after 24 hour (B): 4.20×10^5				Log = 5.62
Sample Identification	No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)	Microbial Kill (% Reduction)
Sample A	<10	<1	>4.62	>99.99
Sample B	<10	<1	>4.62	>99.99
Untreated	10200	4.00	1.62	97.57

2. Test Bacteria: Escherichia coli ATCC 8739

Quantitative Assessment of Activity - JIS Z 2801: 2010				
Control: Conc. of Inoculum on untreated sample at 0 hours (A): 1.65×10^5				Log = 5.21
Control: Conc. of Inoculum on untreated sample after 24 hour (B): 9.50×10^5				Log = 5.97
Sample Identification	No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)	Microbial Kill (% Reduction)
Sample A	290	2.46	3.51	99.96
Sample B	110	2.04	3.93	99.98
Untreated	18600	4.26	1.71	98.04

3. Test Bacteria: Pseudomonas aeruginosa ATCC 9027

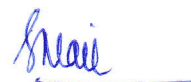
Quantitative Assessment of Activity - JIS Z 2801: 2010				
Control: Conc. of Inoculum on untreated sample at 0 hours (A): 1.29×10^5				Log = 5.11
Control: Conc. of Inoculum on untreated sample after 24 hour (B): 6.90×10^5				Log = 5.83
Sample Identification	No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)	Microbial Kill (% Reduction)
Sample A	60	1.77	4.06	99.99
Sample B	<10	<1	>4.83	>99.99
Untreated	8000	3.90	1.93	98.84

The Standard Antimicrobial value of Evaluation $R \geq 2.0$

COMMENT:

When tested as specified, laminate sample labeled **Sample A** and **Sample B**; **PASS** the Quantitative Assessment of activity untreated; **FAILS** the Quantitative Assessment of activity for Staphylococcus aureus, Escherichia coli and Pseudomonas aeruginosa by JIS Z 2801: 2010 Test Method.

For BIOTECH TESTING SERVICES

Dr Shilpa U. Nair
Quality Manager
(Authorized Signatory)