



BIOTECH TESTING SERVICES LLP

TEST REPORT

REPORT NO. : BTS2401534-02

DATE : 21-06-2024

NAME OF CUSTOMER : GRASIM INDUSTRIES LIMITED - BIRLA PAINT DIVISION
ADDRESS : Plot No.1 & 1-A/1, Aditya Birla Science
Technology Company Pvt Ltd, MIDC, Taloja, Taluka Panvel
Raigad-410208
MAHARASHTRA, INDIA
REFERENCE : Reference Letter No. Nil dated June 11, 2024
Kind Attention: Ajit sawant
DATE OF RECEIPT : 12-06-2024
DATE OF INITIATION : 12-06-2024
DATE OF COMPLETION : 20-06-2024
SAMPLE DESCRIPTION : Leneta sample labeled as

Sample No.	Sample Details	
2401534/S01	Birla Opus PE White One Pure Elegance	
	Description	Product code: 9410019900
Untreated Lab Control		

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Name of Test :

JIS Z 2801: 2010; Amendment 1: 2012

Antibacterial products - Test for antibacterial activity & efficacy.

Test Organisms :

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

Experimental Conditions

Sample Size	: 5cm x 5cm
No. of sets	: Triplicates
Pre-treatment of sample	: ETO Sterilisation
Inoculum Carrier	: 1:500 Nutrient Broth
Cover Film	: LDPE Film (4cm x 4cm)
Lab Control	: LDPE Film (5cm x 5cm)
Contact Time	: 24 hours at 35°C
Media and Reagent	: Soyabean-casein digest agar
Incubation Temperature	: 37°C for 48 hours
Neutriliser Used	: SCDLP Broth

Compliance for Conditions of Valid test:

Test Organism	Logarithmic value of number of viable bacteria untreated sample at 0 hours (Lmax- Lmin)/ Lmean	Average number of viable bacteria recovered immediately after inoculation from the Untreated specimen	The number of viable bacteria recovered from each Untreated specimen after incubation at specified contact duration
Staphylococcus aureus ATCC 6538	0.005	Confirms	Confirms
Escherichia coli ATCC 8739	0.014	Confirms	Confirms
Pseudomonas aeruginosa ATCC 9027	0.006	Confirms	Confirms
Acceptance	≤ 0.2	$6.2 \times 10^3 - 2.5 \times 10^4$ cells/cm ²	Shall not be less than 6.2×10^2 cells/cm ² (ISO 22196: 6.2×10^1 cells/cm ²)

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Results:

ANTIBACTERIAL ACTIVITY

1. Test Organism : Staphylococcus aureus ATCC 6538

Quantitative Assessment of Activity : JIS Z 2801: 2010; Amendment 1: 2012			Av. Count	Log
Untreated Lab Control : Inoculum on untreated sample at 0 hours (U_0) CFU/cm ²			23125	4.36
Untreated Lab Control : Inoculum on untreated sample at 24 hours (U_t) CFU/cm ²			81250	4.91
Sample Identification	No. of Bacteria on treated Sample (A_t) CFU/cm ²	Log of Bacteria on treated sample (A_t)	Antimicrobial Activity $R=(U_t-U_0) - (A_t-U_0)$	
2401534/S01	<6.25	<0.80	>4.13 (>99.99%)	PASSES
Birla Opus PE White One Pure Elegance				

2. Test Organism : Escherichia coli ATCC 8739

Quantitative Assessment of Activity : JIS Z 2801: 2010; Amendment 1: 2012			Av. Count	Log
Untreated Lab Control : Inoculum on untreated sample at 0 hours (U_0) CFU/cm ²			18750	4.27
Untreated Lab Control : Inoculum on untreated sample at 24 hours (U_t) CFU/cm ²			146875	5.17
Sample Identification	No. of Bacteria on treated Sample (A_t) CFU/cm ²	Log of Bacteria on treated sample (A_t)	Antimicrobial Activity $R=(U_t-U_0) - (A_t-U_0)$	
2401534/S01	<6.25	<0.80	>4.39 (>99.99%)	PASSES
Birla Opus PE White One Pure Elegance				

3. Test Organism : Pseudomonas aeruginosa ATCC 9027

Quantitative Assessment of Activity : JIS Z 2801: 2010; Amendment 1: 2012			Av. Count	Log
Untreated Lab Control : Inoculum on untreated sample at 0 hours (U ₀) CFU/cm ²			21875	4.34
Untreated Lab Control : Inoculum on untreated sample at 24 hours (U _t) CFU/cm ²			203125	5.31
Sample Identification	No. of Bacteria on treated Sample (A _t) CFU/cm ²	Log of Bacteria on treated sample (A _t)	Antimicrobial Activity R=(U _t -U ₀) - (A _t -U ₀)	
2401534/S01	<6.25	<0.80	>4.53 (>99.99%)	PASSES
Birla Opus PE White One Pure Elegance				
The Standard Bacterial Effectiveness R > 2 log reduction				

COMMENT:

When tested as specified, sample labeled as Birla Opus PE White One Pure Elegance; Product code: 9410019900; PASS the Quantitative Assessment of activity for Staphylococcus aureus, Escherichia coli and Pseudomonas aeruginosa by JIS Z 2801: 2010; Amendment 1: 2012 Test Method

***** End of Report *****



For Biotech Testing Services LLP

Quality Manager

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Annexure

2401534/S01



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