

Date of Sample(s) Received: 25.08.2020
Date of Job Started: 27.08.2020
Sample Number(s): 13299606

Report No: MUM/001602A/2020
Date of Job Completed: 03.09.2020
Report Date: 03.09.2020

Sample Label: Micro Fight-006 (0.2% chips) (NS/240820-01) Qty 12 Nos. – Laboratory ref. no. 13299606
Base Polymer: LLDPE + Color + Anti-microbial additive MF 006

Customer Name: ASHIRVAD PIPES PVT. LTD., Bangalore, Karnataka

Product : Micro Fight-006 (0.2% chips) **METHOD:** JIS Z 2801

Sr. No.	Title	Plastics - Measurement of antibacterial activity on plastics and other non-porous surfaces
1	Type, Size, Shape & Thickness of Antibacterial treated Test sample	Micro Fight-006 (0.2% chips), 4 X 4cm, square 3mm
2	Type, Size, Shape & Thickness of Un-treated sample	Control chips (NS/240820-03) 4 X 4 cm, square 3mm
3	Type, Size, Shape of Film used to cover test and control sample after inoculation	Polyethene Film of 3 x 3 cm, square <1mm
4	Number of viable bacteria in test inoculum	<i>S. aureus</i> ATCC 6538 2.5 x10 ⁵ cfu/ml <i>E. coli</i> ATCC 8739 2.7 x10 ⁵ cfu/ml
5	Volume of test inoculum inoculated	0.4 ml

1. Test Bacteria: *Staphylococcus aureus* ATCC 6538

UNTREATED: Conc. of Inoculum on untreated sample at 0 hours (A): 12000		Log = 4.07	
UNTREATED: Conc. of Inoculum on untreated sample after 24 hour (B): 360000		Log = 5.56	
No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)	Microbial Kill (% Reduction)
<10	1	4.56	>99.99

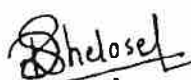
2. Test Bacteria: *Escherichia coli* ATCC 8739

UNTREATED: Conc. of Inoculum on untreated sample at 0 hours (A): 12500		Log = 4.09	
UNTREATED: Conc. of Inoculum on untreated sample after 24 hour (B): 220000		Log = 5.34	
No. Bacteria on treated sample (C)	Log of Bacteria on treated sample	Antimicrobial Activity (R) (Log B-C)	Microbial Kill (% Reduction)
<10	1	4.34	>99.99

Acceptance criteria: R is ≥ 2.0

Interpretation: When tested as specified in JIS Z 2801, the Micro Fight-006 (0.2% chips) PASSES to show Anti-Microbial activity where R is > 2.0 .

Authorized Signatory


Dhanashree Bhelose

Asst. Manager – Business Development & Laboratory Caleb Brett

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