TEST REPORT: 7191127028-CHM15-01-RC

Date: 27 NOV 2015 Tel: +65 68851345 Fax: +65 67732912

Client's Ref: Email: Randy.CHIN@tuv-sud-psb.sg

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SUBJECT

Antimicrobial Activity Evaluation

CLIENT

Duprex Singapore Pte Ltd Blk 5047 Ang Mo Kio Industrial Park 2 #01-607 Singapore 569550

Attn: Ms. Serene Ng

SAMPLE SUBMISSION DATE / TEST DATE

26 Oct 2015 / 19 Nov 2015

DESCRIPTION OF SAMPLE

One coated panels and one uncoated panels were submitted as per below.

- 1. Uncoated plastic (Control)
- 2. Cheerie Antimicrobial Treated Bin Liners

METHOD OF TEST

ISO 22196 - 2011

"Plastic - Measurement of antibacterial activity on plastics surfaces".

The test microorganisms used were:

Staphylococcus aureus (ATCC 6538P) Escherichia coli (ATCC 8739)



Co. Reg: 199002667R

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RESULTS

Test microorganism (Bacterial cells inoculated per test piece)	Average of the number of viable cells of test microorganism per test piece		Value of Antimicrobial Activity (Criteria*: Not less than 2.00)
Staphylococcus aureus (ATCC 6538P)	0 hour	24 hours	(emona : Not 1000 unan 2100)
Uncoated plastic (Control)	120 000	10 000	
Cheerie Antimicrobial Treated Bin Liners	16 - 11	Less than 10	More than 3.00

Test microorganism (Bacterial cells inoculated per test piece)	Average of the number of viable cells of test microorganism per test piece		Value of Antimicrobial Activity (Criteria*: Not less than 2.00)
Escherichia coli (ATCC 8739)	0 hour	24 hours	(Ginelia : 116t 1666 tilair 2166)
Uncoated plastic (Control)	150 000	49 000	-
Cheerie Antimicrobial Treated Bin Liners		Less than 10	More than 3.69

Note:

Criteria making reference to JIS 2801: 2012 "Antimicrobial products - Test for antimicrobial activity and efficacy"

Remarks:

The above test results related to the samples as received.

MS AW HWEE YING

HIGHER TECHNICAL EXECUTIVE

MR RANDY CHIN KOK FEI ASSISTANT PRODUCT MANAGER MICROBIOLOGY

CHEMICAL & MATERIALS

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July 2011