

TEST REPORT: 7191173651-CHM17-01-RC

Date: 01 NOV 2017

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SUBJECT

Antimicrobial Activity Evaluation

CLIENT

Akzo Nobel Paints (Singapore) Pte Ltd
3 AkzoNobel House
#05-01
Changi Business Park Vista
Singapore 486051

Attn : Ms. Utpal Kalita

SAMPLE SUBMISSION DATE / TEST DATE

26 Sep 2017 / 05 Oct 2017

DESCRIPTION OF SAMPLE

One sample as below was submitted.

30 pieces of coated panels labelled as "Dulux EasyCare"

METHOD OF TEST

JIS Z 2801 : 2012

"Antimicrobial products – Test for antimicrobial activity and efficacy".

The test microorganisms used were :

Escherichia coli (ATCC 8739)
Staphylococcus aureus (ATCC 6538P)
Methicillin resistant *Staphylococcus aureus* (NCTC 12493)
Pseudomonas aeruginosa (ATCC 15442)
Salmonella typhimurium (ATCC 14028)
Bacillus subtilis (ATCC 6633)

Test sample size of treated and untreated test piece : 5cm x 5cm

Size of film : 4cm x 4cm polyethylene film

Volume of test inoculum : 0.2 ml



TÜV SÜD PSB

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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 2.0)
	0 hour	24 hours	
<i>Staphylococcus aureus</i> (ATCC 6538P)			
Blank Panel (Control)	160 000	2 100 000	-
Dulux EasyCare	-	Less than 10	More than 5.33

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 2.0)
	0 hour	24 hours	
<i>Escherichia coli</i> (ATCC 8739)			
Blank Panel (Control)	200 000	5 400 000	-
Dulux EasyCare	-	Less than 10	More than 5.73

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 2.0)
	0 hour	24 hours	
<i>Pseudomonas aeruginosa</i> (ATCC 15442)			
Blank Panel (Control)	170 000	2 200 000	-
Dulux EasyCare	-	Less than 10	More than 5.34

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RESULTS (cont'd)

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 2.0)
	0 hour	24 hours	
Methicillin resistant <i>Staphylococcus aureus</i> (NCTC 12493)			
Blank Panel (Control)	180 000	2 000 000	-
Dulux EasyCare	-	Less than 10	More than 5.31

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 2.0)
	0 hour	24 hours	
<i>Salmonella typhimurium</i> (ATCC 14028)			
Blank Panel (Control)	160 000	2 000 000	-
Dulux EasyCare	-	Less than 10	More than 5.30

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 2.0)
	0 hour	24 hours	
<i>Bacillus subtilis</i> (ATCC 6633)			
Blank Panel (Control)	130 000	1 400 000	-
Dulux EasyCare	-	Less than 10	More than 5.15

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Remarks :

The above test results related to the samples as received.

A handwritten signature in black ink, appearing to read 'Hy Y'.

MS AW HWEE YING
HIGHER TECHNICAL EXECUTIVE

A handwritten signature in black ink, appearing to read 'Randy'.

MR RANDY CHIN KOK FEI
PRODUCT MANAGER
MICROBIOLOGY
CHEMICAL & MATERIALS



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July 2011

