



OSAKA LABORATORIES
KAKEN TEST CENTER GENERAL INCORPORATED FOUNDATION
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No. HK-22-007755

1/2

TEST REPORT

July 28, 2022

Name of client : New Island Printing Group Co., Ltd.
 Address : Room 1701, 17/F, Billion Plaza, 8 Cheung Yue Street, Cheung Sha Wan, Kowloon, Hong Kong
 Test item : Antibacterial activity
 Date of receipt : July 11 ,2022

This is to report that the results of laboratory test applied on the sample are as follows:

1. Description of the test samples

Sample No.	The type, name, size, shape, and thickness of antimicrobial and untreated test pieces	Sample swatches
1	Antimicrobial test piece AGS-MV(Coated Paper) 50mm x 50mm x0.5mm	Omitted
	Untreated test piece OST-MV Untreated control 50mm x 50mm x0.5mm	Omitted

2. Test results

2.1. *Staphylococcus aureus*

Type of sample	Sample No.1	
	Preprocessing A	Preprocessing B
Volume of inoculum (mL).	0.4	0.4
Inoculated bacteria concentration (cells/mL).	4.4E+05	4.4E+05
U_0	4.02	4.00
U_t	2.75	3.54
A_t	<-0.20	<-0.20
Antibacterial activity value (R).	>2.9	>3.7

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Remarks: The test results reported in this test report do not apply to a quality of an entire lot but applicable to a submitted sample only.
 We have no responsibility for a test report without an undersigning.
 This test report never certifies the conformity with the Japanese Industrial Standard but only describes obtained test result(s).

2.2. Escherichia coli

Type of sample	Sample No.1	
	Preprocessing A	Preprocessing B
Volume of inoculum (mL).	0.4	0.4
Inoculated bacteria concentration (cells/mL).	5.3E+05	5.3E+05
U_0	4.15	4.19
U_t	5.94	5.87
A_t	<-0.20	1.84
Antibacterial activity value (R).	>6.1	4.0

U_0 : Mean of common logarithm of the number of viable cells of bacteria immediately after inoculation on the untreated test piece.

U_t : Mean of common logarithm of the number of viable cells of bacteria on the untreated test piece after 24hr.

A_t : Mean of common logarithm of the number of viable cells of bacteria on the antimicrobial test piece after 24hr.

3. Test conditions

Test method	JIS Z 2801	
Date of test start	2022/7/20	
Laboratory that conducted the testing	Biological testing laboratory No. 1, Biological laboratory, Osaka laboratories, Kaken Test Center	
The type, size shape, and thickness of film	Sterile polyethylene stomacher bag, 40mm×40mm×0.09mm	
Cleaning of the test piece	The test specimen surface was not cleaned with ethanol by requested for the client.	
Test bacteria	<i>Staphylococcus aureus</i> NBRC 12732	
	<i>Escherichia coli</i> NBRC 3972	
Preprocessing method for test piece*	Preprocessing A	Durability of antibacterial activity against immersion to water: SIAA** classification 0
	Preprocessing B	Durability of antibacterial activity against light irradiation: SIAA** classification 1
* These preprocessing methods are not included in JNLA registration scope.		
** "Society of International sustaining growth for Antimicrobial Articles ".		

Signatory, Manager:

Y. Takahashi
Y. Takahashi