

No. HK-22-019108

1/2

## TEST REPORT

December 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 : December 19 ,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-UE(Coated Paper) 50mm x 50mm x0.5mm	Omitted
	Untreated test piece OST-UE 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).	7.3E+05	7.3E+05
$U_0$	4.22	4.22
$U_t$	4.33	1.85
$A_t$	<-0.20	<-0.20
Antibacterial activity value (R).	>4.5	>2.0

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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).	7.1E+05	7.1E+05
$U_0$	4.21	4.22
$U_t$	5.86	4.89
$A_t$	<-0.20	<-0.20
Antibacterial activity value (R).	>6.0	>5.0

$U_0$  : 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	2022/12/21
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 <b>immersion to water: SIAA** classification 0</b> Preprocessing B Durability of antibacterial activity against <b>light irradiation: SIAA** classification 1</b>
* These preprocessing methods are not included in JNLA registration scope. ** "Society of International sustaining growth for Antimicrobial Articles".	

Signatory, Manager:

Y. Takahashi