



Test Report

No. F690101/LF-CTSAYAR20-01338E

Issued Date : 2020. 05. 29

Sample No. : AYAR20-01338E.001
Sample Description : Anti bacteria Cu Film
Item / Part No. : N/A
Material : N/A

Antimicrobial Activity (JIS Z 2801:2010E)

Test microorganisms	Result(s)					
	Initial bacteria number (CFU/film)	Bacteria number after 24 hr at 35 °C		Antimicrobial activity		
		Control (CFU/film)	Sample (CFU/film)	R	Percentage (%)	
<i>Escherichia coli</i> ATCC 8739	2.2 x 10 ⁵	1.2 x 10 ⁸	1st	<25	6.7	>99.9%
			2nd	<25	6.7	>99.9%
			3rd	<25	6.7	>99.9%
<i>Staphylococcus aureus</i> ATCC 6538	2.1 x 10 ⁵	4.3 x 10 ⁶	1st	<25	5.2	>99.9%
			2nd	<25	5.2	>99.9%
			3rd	<25	5.2	>99.9%

<Remark>

- 1) Sample material: Plastic film
- 2) Inoculum Concentration:
Escherichia coli : 2.2 x 10⁵ CFU/film
Staphylococcus aureus : 2.1 x 10⁵ CFU/film
- 3) Method: JIS Z-2801 methods - Pour plate method
- 4) Dilution medium: 1/500 Nutrient broth (BD)



Test Report

No. F690101/LF-CTSAYAR20-01071

Issued Date : 2020. 04. 16

Sample No. : AYAR20-01071.001
Sample Description : SAT13B
Item / Part No. : N/A
Material : N/A

Antimicrobial Activity (ISO 22196)

Test microorganisms	Result(s)					
	Initial bacteria number (CFU/film)	Bacteria number after 24 hr at 35 °C		Antimicrobial activity		
		Control (CFU/film)	Sample (CFU/film)	R	Percentage (%)	
<i>Klebsiella pneumoniae</i> ATCC 4352	2.1 x 10 ⁵	1.0 x 10 ⁸	1 st	4.8 x 10 ⁵	2.3	99.5%
			2 nd	3.4 x 10 ⁵	2.5	99.7%
			3 rd	3.4 x 10 ⁵	2.5	99.7%

<Remark>

- 1) Sample material: Plastic
- 2) Inoculum Concentration:
Klebsiella pneumoniae : 2.1 x 10⁵ CFU/film
- 3) Method: ISO 22196 methods
- 4) Dilution medium: 1/500 Nutrient broth (BD)
- 5) The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test report is not related to Korea Laboratory Accreditation and KS Q ISO/IEC 17025.
- 6) Verify for authenticity and validity in web site : https://twap.sgs.com/sgsrsts_cloud.

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