

## TEST REPORT

Number : HKGH02943459

(1) Measurement of antibacterial activity on plastics and other non-porous surfaces

Test Standard : International Standard ISO 22196:2011.

Test Item: Antimicrobial iPhone Case / Antimicrobial iPhone Screen Protector

Test culture: *Escherichia coli* (ATCC 8739) – 7.6x10<sup>5</sup> CFU/mL  
*Staphylococcus aureus* (ATCC 6538P) – 5.9x10<sup>5</sup> CFU/mL

Test specimen: 50 mm x 50 mm flat square of submitted sample  
 50 mm x 50 mm flat square of untreated sample as control

Neutralizing solution: D/E neutralizing broth

Contact time / temperature: 24 hours / 35°C

Agar medium: Plate Count Agar

Incubation period / temperature of agar: 48 hours / 35°C

Test condition: 0.4 mL bacterial inoculum was added onto marked surface of the test specimen sample

Result :

Test microorganism	U <sub>o</sub> Criteria: 3.7 ≤ U <sub>o</sub> ≤ 4.4	U <sub>t</sub> Criteria: U <sub>t</sub> ≥ 1.8	A <sub>t</sub>	Log R	% R	Comment*
<i>Escherichia coli</i>	4.13	6.08	0	6.08	99.9999	Significant
<i>Staphylococcus aureus</i>	4.22	3.88	0	3.88	99.9	Significant

Remark : U<sub>o</sub> = Log (bacteria recovered from untreated specimen in CFU/cm<sup>2</sup>) immediately after inoculation  
 U<sub>t</sub> = Log (bacteria recovered from untreated specimen in CFU/cm<sup>2</sup>) after 24 hours incubation  
 A<sub>t</sub> = Log (bacteria recovered from treated specimen in CFU/cm<sup>2</sup>) after 24 hours incubation  
 R = Log reduction value (U<sub>t</sub> - A<sub>t</sub>)

Reference Rating*:	%R	Antibacterial activity
	<90%	Not acceptable
	>90 - <99%	Insignificant
	≥99%	Significant

Sample received condition: Samples in closed plastic bags.

Date sample received : Nov 08, 2022  
 Testing period : Nov 14, 2022 to Nov 22, 2022

