



1. NO: CT20-040625E

2. Client

O Name : CLEAN CU

O Address: 85, Taeri-ro 179beon-gil, Gochon-eup, Gimpo-si, Gyeoggi-do, Republic of Korea

3. Date of Test: 2020.03.30 ~ 2020.04.28

4. Use of Report: Quality Control

5. Test Sample: Antibacterial Copper PE (film sheet_c.c)

6. Test Method

(1) KCL-FIR-1003:2018

Affirmation	Tested By	Junganin, Lee	Technical Manager	B Surgil
	Tested By Name : Lee, Jung Min		Name : BIN SUNG IL	

This report is not accredited by KOLAS.

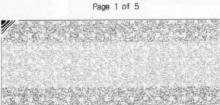
Our report apply only to the standards or procedures identified and to the sample(s) tested unless otherwise specified. The test results are not indicative of representative of the qualities of the qualities of the lot from which the sample was taken or of apparently identical or similar products. The results of using only a portion of this report cannot be guaranteed. The authenticity of this test report can be checked on KCL website(www.kcl.re.kr).

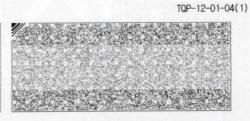
2020.04.28

Korea Conformity Laboratories President Yoon, Kap Seok Joon, Kap S

Result Inquiry: unit108, Industry-Academic Cooperation Foundation, Hankyong National University, 327, Jungang-ro, Anseong-si, Gyeonggi-do, 17579, Korea (82-31-389-9186)









No : CT20-040625E

7. Test Results

			Test Results			
Test Items		Test method	Early Conc. (CFU/mL)	After 16h Conc (CFU/mL)	Reduction rate (%)	Testing Environment
Antibacterial test: Klebsiella pneumoniae	BLANK	KOL-FIR-1003 :2018	2.4 × 10 ⁵	6.4 × 10 ⁶	_	- (37.0 ± 0.2) ℃
	Antibacterial Copper PE (film sheet_c.c)		2.4 × 10 ⁵	< 10	99.9	
Antibacterial test : MRSA	BLANK		2.0×10^{5}	6.1 × 10 ⁶	-	
	Antibacterial Copper PE (film sheet_c.c)		2.0 × 10 ⁵	< 10	99.9	

* CFU: Colony Forming Unit

★ Inoculum concentration(CFU/mL): Klebsiella pneumoniae: 2.4 × 10⁵

MRSA : 2.0×10^{5}

* Test strain: Klebsiella pneumoniae ATCC 4352

MRSA(Staphylococcus aureus subsp. aureus) ATCC 33591

* Reaction time: 16 h

* Sample : 5 cm × 5 cm, Blank : Stomacher film : 5 cm × 5 cm

* Location: unit108, Industry-Academic Cooperation Foundation, Hankyong National University,

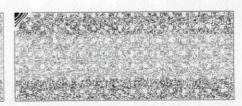
327, Jungang-ro, Anseong-si, Gyeonggi-do, 17579, Korea













No : CT20-040625E



<Picture 1. Klebsiella pneumoniae - BLANK (16 h)>



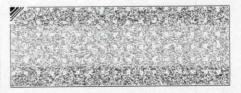
<Picture 2. Klebsiella pneumoniae - Antibacterial Copper PE (film sheet_c.c) (16 h)>

- Page 3 of 5 -

TQP-12-01-04(1)

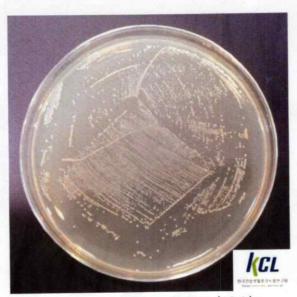








No : CT20-040625E



<Picture 3. MRSA - BLANK (16 h)>



<Picture 4. MRSA - Antibacterial Copper PE (film sheet_c.c) (16 h)>

- Page 4 of 5 -

TQP-12-01-04(1)









No : CT20-040625E



<Picture 5. Sample - Antibacterial Copper PE (film sheet_c.c)>

-- End of Report -

- Page 5 of 5 -

TQP-12-01-04(1)





