

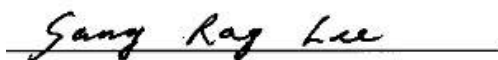
# TEST REPORT

**KOTITI NO.** : 1210014121  
**APPLICANT** : NOROO COIL COATING  
**DATE IN** : June 7, 2012  
**DATE OUT** : June 14, 2012

<b>Sample Description</b>	DONGBU STEEL ANTI-BACTERIAL WHITE PANEL
<b>Item</b>	N/S
<b>Buyer</b>	DONGBU STEEL
<b>Style Number</b>	N/S
<b>P.O. Number</b>	N/S
<b>Color(s) Submitted</b>	WHITE
<b>Submitted Fiber Composition</b>	N/S
<b>Submitted Care Instruction</b>	N/S
<b>Test Result</b>	For further details, please refer to the following page(s).

\* N/S : Not Submitted

PREPARED and CHECKED by :



**DR. SANG RAG LEE**  
DIRECTOR – KOTITI

AUTHORIZED by :



**DR. YOUNG RYUL KIM**  
DIRECTOR GENERAL – KOTITI

Contact information for technical questions and general inquiries.

· Prepared by :	Tae Young Lee	(822) 3451 7048	Team13@kotiti.re.kr
· Primary contact :	Hong Lok Yang	(822) 3451 7118	HI_yang@kotiti.re.kr
· Back-up :	Hee Soo Lee	(822) 3451 7070	Hs_lee@kotiti.re.kr

OUR REPORTS AND LETTERS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED, AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME OF KOREA TEXTILE INSPECTION & TESTING INSTITUTE MUST RECEIVE OUR PRIOR WRITTEN APPROVAL OUR LETTERS AND REPORTS APPLY ONLY TO THE STANDARDS OR PROCEDURES IDENTIFIED AND TO THE SAMPLE(S) TESTED. THE TEST RESULTS ARE NOT NECESSARILY INDICATIVE OR REPRESENTATIVE OF THE QUALITIES OF THE LOT FROM WHICH THE SAMPLE WAS TAKEN OR APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. NOTHING CONTAINED IN THIS REPORT SHALL MEAN THAT KOREA TEXTILE INSPECTION & TESTING INSTITUTE CONDUCTS ANY QUALITY CONTROL PROGRAM FOR THE CLIENT TO WHOM THIS REPORT IS ISSUED UNLESS SPECIFICALLY SPECIFIED.

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
----------------	----------------	-------------

**Antibacterial Test**

JIS Z 2801:2000

*Staphylococcus aureus*

Test Sample	Number of viable cells of bacteria	Value of Antibacterial activity	Reduction (%)
Control specimen* (Inoculated)	3.5 X 10 <sup>5</sup>	-	-
Control specimen* (after 24 hours)	4.2 X 10 <sup>5</sup>	-	-
Sample (after 24 hours)	< 10	4.3	99.9

*Escherichia coli*

Test Sample	Number of viable cells of bacteria	Value of Antibacterial activity	Reduction (%)
Control specimen* (Inoculated)	3.3 X 10 <sup>5</sup>	-	-
Control specimen* (after 24 hours)	4.4 X 10 <sup>5</sup>	-	-
Sample (after 24 hours)	< 10	4.3	99.9

&lt; : less than

\* Note: Polyethylene film was used as control specimen

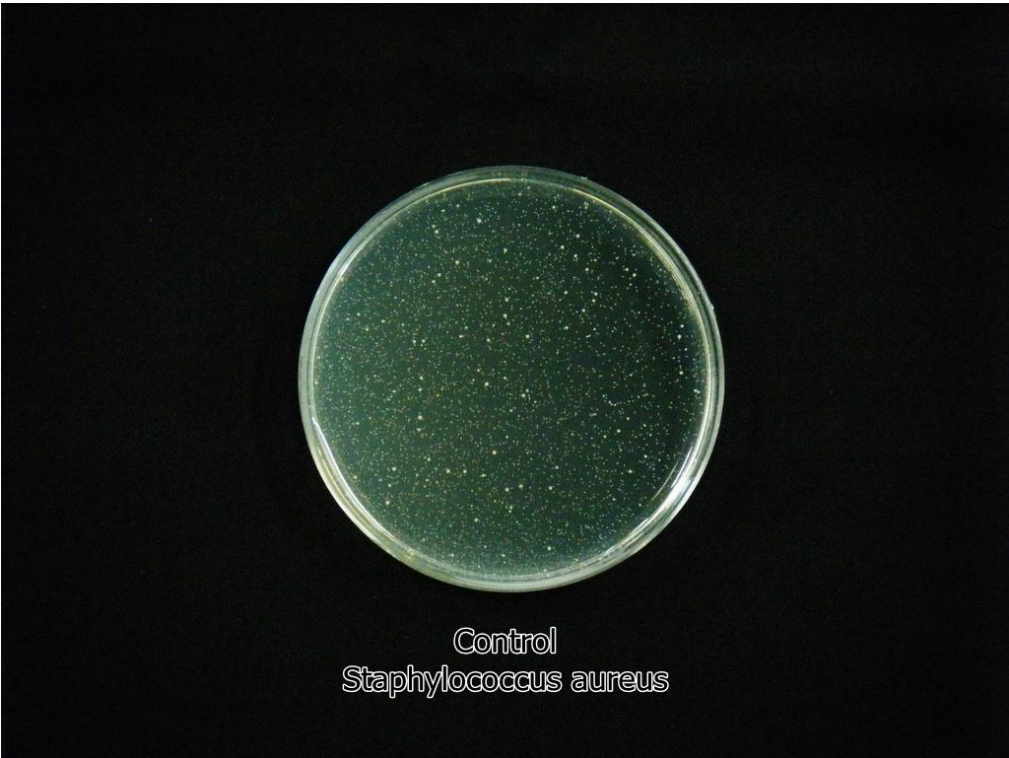
Test Bacteria: *Staphylococcus aureus* (ATCC 6538P)  
*Escherichia coli* (ATCC 8739)

---

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
	<i>Staphylococcus aureus</i>	

Photomicrograph

Untreated Sample



---

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
	<i>Staphylococcus aureus</i>	

Photomicrograph

Treated Sample

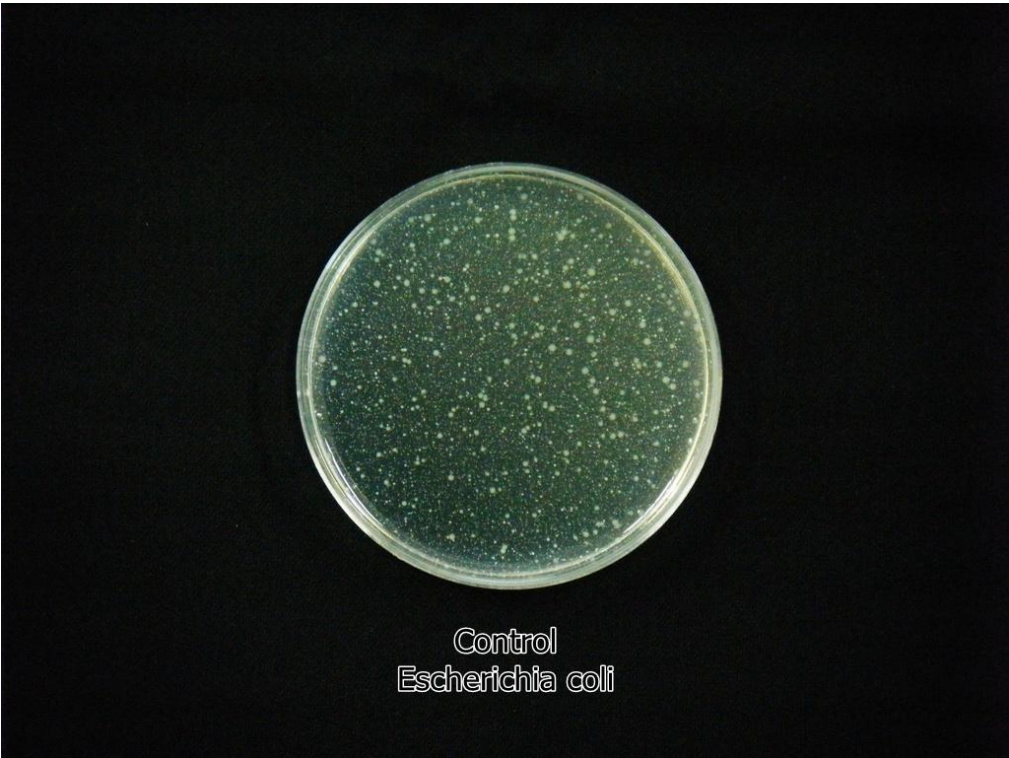


---

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
	<i>Klebsiella pneumoniae</i>	

Photomicrograph

Untreated Sample

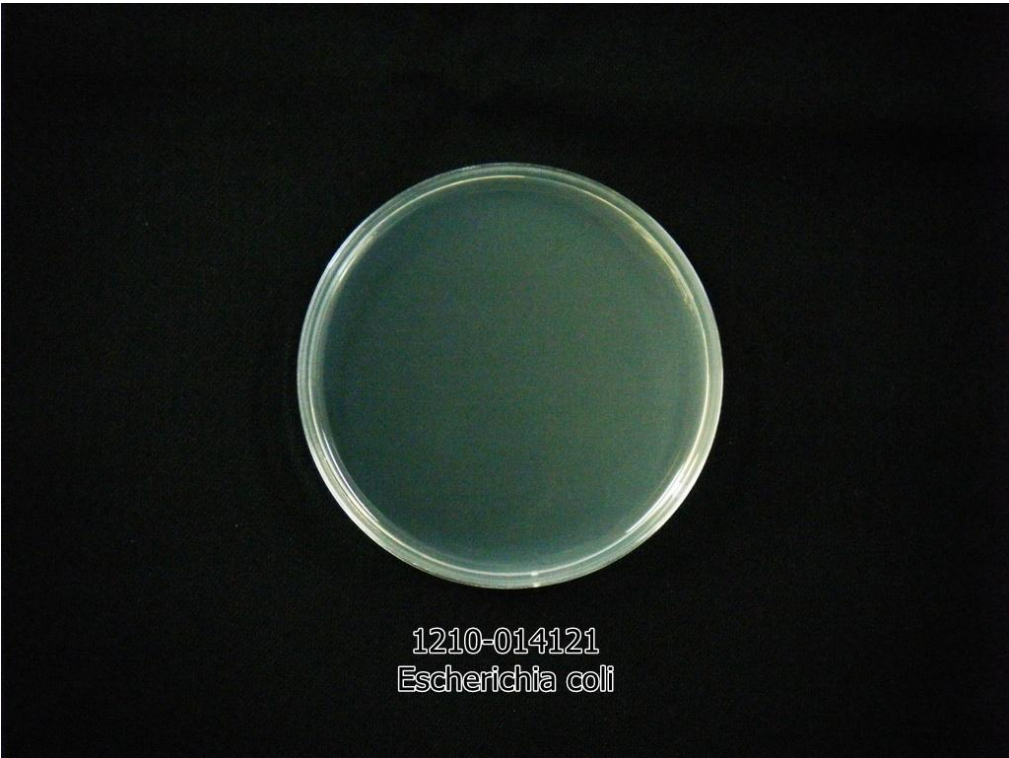


---

TEST CONDUCTED	TEST RESULT(S)	TEST METHOD
	<i>Klebsiella pneumoniae</i>	

Photomicrograph

Treated Sample



---

Sample