

Client : Life Material Technologies Limited.
No.247, Room no.222, 2nd Floor, Lumpini II Building, Rajadamri Road, Lumpini,
Phatumwan, Bangkok 10330 Thailand

The following sample(s) was/were submitted and identified by client as:

Sample Name : MOGALVIN ANTIBACTERIAL PANEL
Sample Description : MOGALVIN ANTIBACTERIAL GALVANIZED PANEL
Sample No. : 4001918
Sample Condition : Sample is contained in a plastic bag.
Quantity Submitted : 6 pcs
Item name : MOGALVIN GALVANIZED panel - control/Untreated
: MOGALVIN Antibacterial Treated - Galvanized Panel
Supplier name : Unicoil
Technical Support : Beckers-UAE & Life Material Technologies Limited.
Date Received : 8-May-2018 Date Commenced : 8-May-2018
Test Results : Please see the attached sheet.

**Signed for and on behalf of
SGS (Thailand) Limited**



Jirapan Vilaipol
Microbiological Lab Manager

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TEST RESULTS

Test Required : Antibacterial activity and efficacy (Quantitative) - Staphylococcus aureus ATCC 6538P (and) - Escherichia coli ATCC 8739
 Test Method : Based on JIS Z 2801:2010

Tested microorganism	Concentration of bacteria (CFU/ml)	Initial inoculum concentration (CFU/piece of samples)	The number of bacteria recovered from control at 0 hr. contact time(CFU/piece of samples)	The number of bacteria recovered from control at 24 hrs. contact time(CFU/piece of samples)	The number of bacteria recovered from tested sample at 24 hrs. contact time(CFU/piece of samples)	Value of antimicrobial activity(R)	%Reduction
<i>Staphylococcus aureus</i> ATCC 6538P	600,000	240,000 (5.4 log)	250,000 (5.4 log)	370,000 (5.6 log)	Less than 10 (<1.0 log)	>4.6	>99.99
<i>Escherichia coli</i> ATCC 8739	550,000	220,000 (5.3 log)	240,000 (5.4 log)	5,300,000 (6.7 log)	Less than 10 (<1.0 log)	>5.7	>99.99

Remark

- The % Reduction is calculated based on customer's requirement.
- % Reduction = (A-B)/A * 100
 where,
 A = The number of bacteria recovered from control at 24 hrs. contact time(CFU/piece of samples)
 B = The number of bacteria recovered from tested sample at 24 hrs. contact time(CFU/piece of samples)
- $R = (U_t - U_o) - (A_t - U_o) = U_t - A_t$

Where, R : antibacterial activity

Uo : average of logarithm numbers of viable bacteria immediately after inoculation on untreated test piece

Ut : average of logarithm numbers of viable bacteria after inoculation on untreated test piece after 24 h

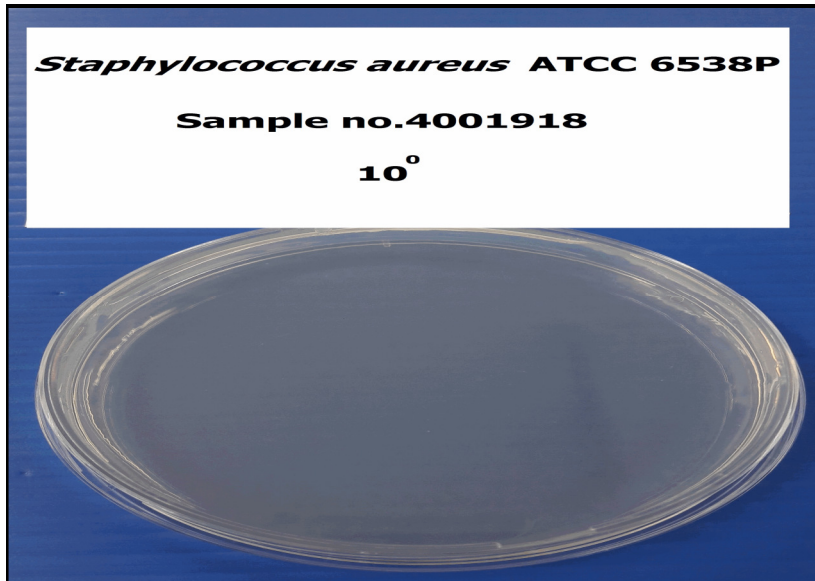
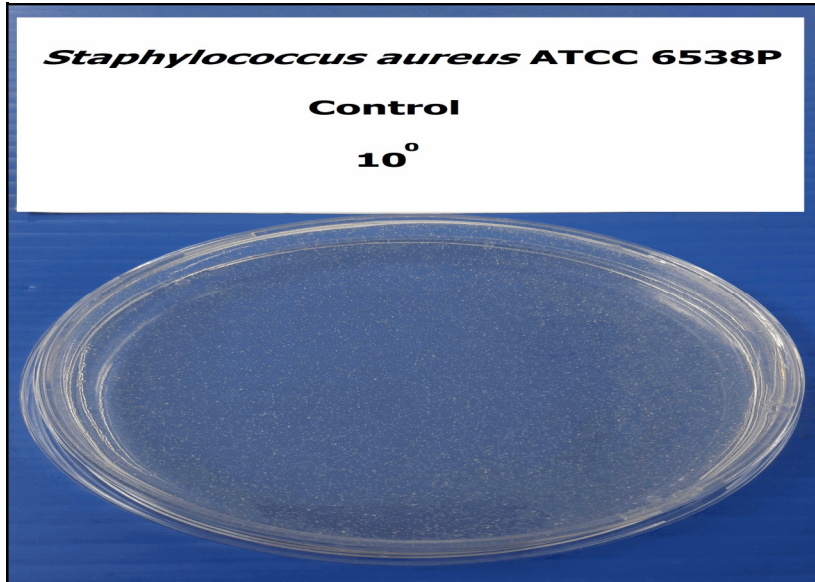
At : average of logarithm numbers of viable bacteria after inoculation on antibacterial test piece after 24 h

Criteria : The value of antimicrobial activity obtained by the testing methods of this standard shall not be less than 2.0

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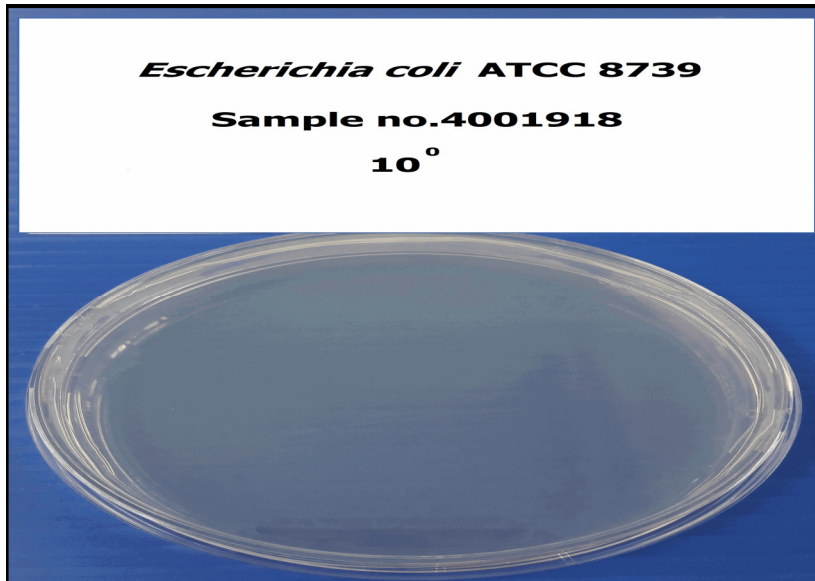
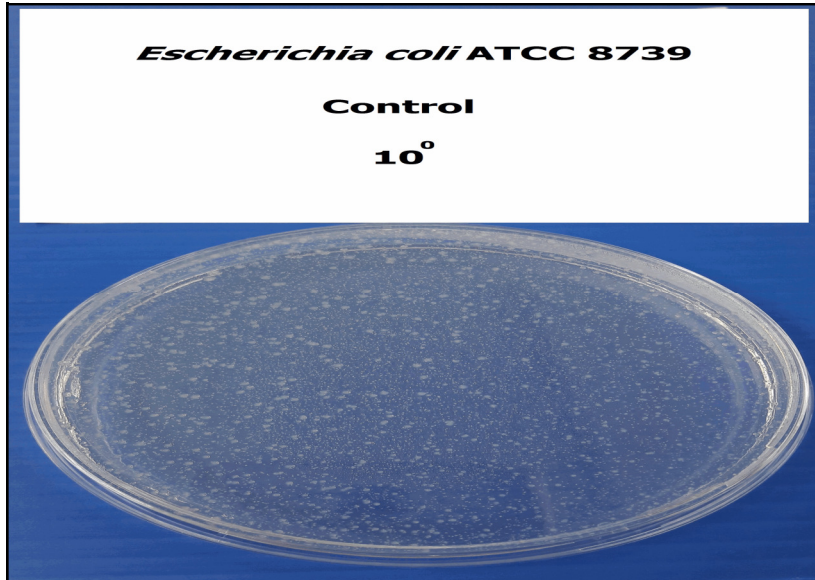
SAMPLE/ATTACHMENT PICTURE



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***** End of Report *****

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