

TEST REPORT

Nº 2011TM0432

DATE OF RECEPTION

14/11/2011

APPLICANT

DELIUS GmbH.
GOLDSTRABE 16-18
33602 BIELEFELD
GERMANY

DATE TEST

Starting: 14/11/2011
Ending: 18/11/2011

DESCRIPTION AND
IDENTIFICATION OF
SAMPLES

SAMPLES REFERENCED:

-"SOLO".

TESTS CARRIED
OUT

- ANTIBACTERIAL ACTIVITY

ATTACHED



SAMPLE(S)

SEALED

PAGE



OF

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RESULTS

ANTIBACTERIAL ACTIVITY

Standard: ASTM E2180-07

Principle:

The standard specifies the testing methods to evaluate antimicrobial activity and antimicrobial efficacy on bacteria on the surface of antimicrobial products, of hydrophobic materials or polymeric surfaces.

The test requires some sample material that has been given an antibacterial treatment and a control material. Both materials are inoculated, with a bacterial suspension, and incubated for 24 h at an optimal temperature. After 24 h of incubation, the antimicrobial activity is calculated, which expresses the difference in bacterial growth between the sample material and the control material as antimicrobial activity.

Test date: 14/11/11 - 18/11/11

Sample reference: SOLO

Test microorganism: *Staphylococcus aureus* ATCC 6538

Tested area: 3 cm²

Results:

<i>Staphylococcus aureus</i> ATCC 6538		
Control sample		
Incubation time	ufc/ml	Log
24 h	108,266	5.03
Sample ref. SOLO		
Incubation time	ufc/ml	Log
24 h	3,680	3.56
Value of antimicrobial activity (Percent reduction)	96.6 %	

Notes:

- It has been used as a control the sample without antibacterial finished.



RESULTS

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Test date: 14/11/11 - 18/11/11

Sample reference: SOLO

Test microorganism: *Klebsiella pneumoniae* ATCC 4352

Tested area: 3 cm²

Results:

<i>Klebsiella pneumoniae</i> ATCC 4352			
Control sample			
Incubation time		ufc/ml	Log
24 h		122,166	5.08
Sample ref. SOLO			
Incubation time		ufc/ml	Log
24 h		62,667	4.79
Value of antimicrobial activity (Percent reduction)		48.7 %	

Notes:

- It has been used as a control the sample without antibacterial finished.



RESULTS

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The test requires some sample material that has been given an antibacterial treatment and a control material. Both materials are inoculated, with a bacterial suspension, and incubated for 24 h at an optimal temperature. After 24 h of incubation, the antimicrobial activity is calculated, which expresses the difference in bacterial growth between the sample material and the control material as antimicrobial activity.

Test date: 14/11/11 - 18/11/11

Sample reference: SOLO

Test microorganism: *Escherichia coli* ATCC 8739

Tested area: 3 cm²

Results:

<i>Escherichia coli</i> ATCC 8739			
Control sample			
Incubation time	ufc/ml	Log	
24 h	320,000	5.5	
Sample ref. SOLO			
Incubation time	ufc/ml	Log	
24 h	<20	0	
Value of antimicrobial activity (Percent reduction)		100 %	

Notes:

- It has been used as a control the sample without antibacterial finished.



RESULTS

ANTIBACTERIAL ACTIVITY

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The standard specifies the testing methods to evaluate antimicrobial activity and antimicrobial efficacy on bacteria on the surface of antimicrobial products, of hydrophobic materials or polymeric surfaces.

The test requires some sample material that has been given an antibacterial treatment and a control material. Both materials are inoculated, with a bacterial suspension, and incubated for 24 h at and optimal temperature. After 24 h of incubation, the antimicrobial activity is calculated, which expresses the difference in bacterial growth between the sample material and the control material as antimicrobial activity.

Test date: 14/11/11 - 18/11/11

Sample reference: SOLO

Test microorganism: *Pseudomonas aeruginosa* ATCC 15442

Tested area: 3 cm²

Results:

<i>Pseudomonas aeruginosa</i> ATCC 15442			
Control sample			
Incubation time		ufc/ml	Log
24 h		113,166	5.05
Sample ref: SOLO			
Incubation time		ufc/ml	Log
24 h		85,433	4.93
Value of antimicrobial activity (Percent reduction)		24.5 %	

Notes:

- It has been used as a control the sample without antibacterial finished.



Isabel Soriano
Jefa Área Innovación
Chief of Innovation Area

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