Order no.:

Customer ID:
Date of sampling: /
Sampling by: customer

Lucerne, 30 May 2010

Test Report

Determination of the activity of antimicrobial agents in polymeric or hydrophobic materials

Sample:	**20516751**
Batch no.:	/
Control sample:	PVC 250 µm
Test method:	ASTM E 2180-07 (Standard test method for determining the activity of incorporated antimicrobial agent(s) in polymeric or hydrophobic materials)

Sample size:	3 x 3 cm
Agar slurry (semi-gelatinous):	8.5 g/l NaCl containing 3 g/l agar
Inoculum volume:	1 ml
Exposition time:	24 h
Exposition temperature:	22.5 ± 2.5°C

Test organism: **Escherichia coli ATCC 8739**

	Replicate 1 (cfu)	Replicate 2 (cfu)	Replicate 3 (cfu)	Geometric mean (cfu)
Control sample (0 h)	1.1×10^6	9.4×10^5	1.1×10^6	1.0×10^6
Control sample (24 h)	9.0×10^6	9.8×10^6	7.4×10^6	8.7×10^6
Treated sample (24 h)	< 10	< 10	< 10	< 10

Reduction after 24 h $> \dfrac{(8.7 \times 10^6 - 10) \times 100}{8.7 \times 10^6}$ → **> 99.9998% (> 5.9 log units)**

Bioexam AG
Maihofstrasse 95a
6000 Luzern 6

Labor für
Lebensmittel-, Heilmittel-
und Hygieneuntersuchungen

Tel 041 429 31 33
Fax 041 429 31 30
mail@bioexam.ch
www.bioexam.ch

STS 268
ISO/IEC 17025
akkreditiert
GMP zertifiziert

Test organism: **Pseudomonas aeruginosa ATCC 9027**

	Replicate 1 (cfu)	Replicate 2 (cfu)	Replicate 3 (cfu)	Geometric mean (cfu)
Control sample (0 h)	1.7×10^5	1.5×10^5	1.5×10^5	1.6×10^5
Control sample (24 h)	8.2×10^6	9.5×10^6	8.0×10^6	8.5×10^6
Treated sample (24 h)	< 10	< 10	< 10	< 10

Reduction after 24 h $> \dfrac{(8.5 \times 10^6 - 10) \times 100}{8.5 \times 10^6} \rightarrow$ **> 99.9998% (> 5.9 log units)**

Test organism: **Staphylococcus aureus ATCC 6538**

	Replicate 1 (cfu)	Replicate 2 (cfu)	Replicate 3 (cfu)	Geometric mean (cfu)
Control sample (0 h)	1.3×10^6	1.3×10^6	1.1×10^6	1.2×10^6
Control sample (24 h)	7.6×10^5	8.0×10^5	7.5×10^5	7.7×10^5
Treated sample (24 h)	< 10	< 10	< 10	< 10

Reduction after 24 h $> \dfrac{(7.7 \times 10^5 - 10) \times 100}{7.7 \times 10^5} \rightarrow$ **> 99.998% (> 4.8 log units)**

Test organism: **Candida albicans ATCC 10231**

	Replicate 1 (cfu)	Replicate 2 (cfu)	Replicate 3 (cfu)	Geometric mean (cfu)
Control sample (0 h)	4.8×10^4	5.1×10^4	5.9×10^4	5.2×10^4
Control sample (24 h)	1.1×10^5	1.0×10^5	1.1×10^5	1.1×10^5
Treated sample (24 h)	< 10	< 10	< 10	< 10

Reduction after 24 h $> \dfrac{(1.1 \times 10^5 - 10) \times 100}{1.1 \times 10^5} \rightarrow$ **> 99.991% (> 4.0 log units)**

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Test organism: **Aspergillus niger ATCC 16404**

	Replicate 1 (cfu)	Replicate 2 (cfu)	Replicate 3 (cfu)	Geometric mean (cfu)
Control sample (0 h)	3.7×10^4	4.8×10^4	2.8×10^4	3.7×10^4
Control sample (24 h)	6.1×10^4	5.5×10^4	5.4×10^4	5.7×10^4
Treated sample (24 h)	3.1×10^2	6.2×10^2	7.1×10^2	5.1×10^2

Reduction after 24 h = $\dfrac{(5.7 \times 10^4 - 5.1 \times 10^2) \times 100}{5.7 \times 10^4}$ = **99.1% (2.1 log units)**

Dr. Lukas Rohr
Technical Manager

The results reported here relate exclusively to the presently investigated sample. Specifications of analytical reliability can be obtained from the laboratory upon request.

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