

Test Report

Report No.: FLSHF000101720001

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Applicant : Maanshan Tong-Jie-Liang Biomaterials Co.,Ltd

Address : No.2196 HongQiNanLu , Maanshan economic and technological development zone

Report on the submitted sample(s) said to be:

Sample Name : PLA FIBER
Model No. : TJL-F30605
Manufacturer : Maanshan Tong-Jie-Liang Biomaterials Co.,Ltd
Sample Quantity : 50g
Sample Status : Solid
Sample Received Date : Jun.05, 2013
Sample Tested Date : Jun.05, 2013- Jun.21, 2013

Test Requested: As specified by client, in accordance with GB/T 20944.3-2008 Textiles
-Evaluation for antibacterial activity Part 3:Shake flask method

Test Component(s): PLA FIBER

Test Item(s) : Please refer to the following page(s).

Test Method: Please refer to the following page(s).

Test Result(s): Please refer to the following page(s).

Tested by

Ji Han

Reviewed by

Amos Zhu

Approved by

Jiaming Zhou

Date

Jun.21, 2013

Jiaming Zhou

Technical manager



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Test Method:

With reference to GB/T 20944.3-2008 Textiles-Evaluation for antibacterial activity-Part 3: Shake flask method.

Test Organisms:

Staphylococcus aureus (ATCC 6538)

Escherichia coliform (ATCC 8739)

Candida albicans (ATCC 10231)

Test Result:

1. Test effectiveness:

For *Staphylococcus aureus* and *Escherichia coliform*, when the value of microorganism growth ≥ 1.5 ; for *Candida albicans*, when the value of microorganism growth ≥ 0.7 , and the concentration of microorganisms in reference flask after inoculation increased, the testing is effective. Otherwise, the testing must be conducted again.

$$F = \lg W_t - \lg W_0$$

W_t - the value of microorganism growth on controlled sample;

W_t - the average value of microorganisms after inoculation and vibrating 18 hours on 3 controlled samples;

W_0 - the average value of microorganisms after inoculation immediately on 3 controlled samples;

2. Calculation for bacteriostatic rate:

$$\text{Bacteriostatic rate} = (W_t - Q_t) / W_t \times 100\%$$

Q_t - the average value of microorganisms after inoculation and vibrating 18 hours on 3 test samples.

3. Result:

Test Organisms	Inoculation concentration (CFU/ml)	W_0 (CFU/ml)	W_t (CFU/ml)	Q_t (CFU/ml)	F	Bacteriostatic rate (%)
<i>Staphylococcus aureus</i>	3.6×10^5	2.4×10^4	1.3×10^6	3.8×10^3	1.7	>99
<i>Escherichia coliform</i>	3.6×10^5	2.4×10^4	1.5×10^6	1.3×10^5	1.8	91
<i>Candida albicans</i>	2.6×10^5	1.8×10^4	1.5×10^5	4.2×10^4	0.9	72

Evaluation for antibacterial activity:

When bacteriostatic rate to *Staphylococcus aureus* and *Escherichia coliform* is not less than 70%, or bacteriostatic rate to *Candida albicans* is not less than 60%, the antibacterial activity for sample submitted is acceptable.

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Photo(s) of the sample(s)



*** End of report ***

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