Report Number: BOMT15035544
APPLICANT: Pulp & Fibre Innovation Centre
A unit of Grasim Industries Limited, Plot No. 1 & l- A/1, MIDC Taloja, Section NC-1 & NC-2-Fanvel, Raigad, Maharashtra, 410208, INDIA

ATTN: Sushant Murudkar

Sample Description: ONE PACKET OF SUBMITTED FIBER SAMPLE, MARKED AS 140915-A.

Date Received/Date Test Started: 16 Sep 2015
Date Confirmation Received: -
Buyer: NOT PROVIDED
Order No: -
Fibre Content: -
Color: -
Style No: -
Article No: -

TEST CONDUCTED: AS PER THE REQUEST OF THE APPLICANT. FOR FURTHER DETAILS PLEASE REFER TO ENCLOSED PAGE(S)

AUTHORIZED BY
FOR Intertek India Private Limited - [Mumbai]

SUNDARMURTHY KRISHNAN
NATIONAL HEAD - PHYSICAL
TEST REPORT

NUMBER : BOMT15035544
DATE : 22–Sep–2015

TEST CONDUCTED (AS REQUESTED BY THE APPLICANT)

Name of Test:
Evaluation of Antimicrobial Activity of Fabric samples by **ASTM: E 2149-13a Method**

Test Organisms Used:
1. Staphylococcus aureus ATCC 6538 (2.00 x 10⁵ CFU/ ml)
2. Klebsiella pneumoniae ATCC 4352 (2.00 x 10⁵ CFU/ ml)

Quantity of Sample:
1 gram

Results:
Fibre pieces in contact with bacterial suspension on wrist arm shaker for **24 hr** shows -

<table>
<thead>
<tr>
<th>Sample Identification</th>
<th>Test Organism</th>
<th>No. of Bacteria per sample (CFU/ml)</th>
<th>Percentage Reduction of Bacteria (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inoculated Treated Sample at 0 hrs. (B)</td>
<td>Inoculated Treated Sample at 24 hrs.(A)</td>
</tr>
<tr>
<td>FIBER</td>
<td>Staph. aureus</td>
<td>1.98 x 10⁵</td>
<td>1.40 x 10²</td>
</tr>
<tr>
<td></td>
<td>K. pneumoniae</td>
<td>2.04 x 10⁵</td>
<td>1.15 x 10³</td>
</tr>
</tbody>
</table>

REMARKS:
1. CFU: Colony Forming Unit = No. of Microorganisms
2. Percentage Reduction of Microorganism (R) = 100 (B – A/ B)

INTERPRETATION:
Fiber labeled as **FIBER** has shown **99.29%** and **99.43%** antimicrobial activity towards Staphylococcus aureus and Klebsiella pneumoniae respectively when tested according to **ASTM: E 2149-13a Method.**

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