

## Customer Report

Thursday, January 28, 2016

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**Globe Industries Ltd.**

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Bulgaria

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**Plamen Dimitrov**

### Project Title

Antimicrobial Test

ID

**1015-BPT-01 -- 4**

Entry Date 12/2/2015

### Project Summary

The AATCC 194 test method provides an assessment of the anti-insect properties of a treated material to the inhabitation of dust mites. Enumeration of the relative dust mite populations is by visual counting of the mites on the test material. The overall efficacy for a treated product is done by comparing a treated material to an untreated material following a 6 week incubation period.

Issues associated with dust mites are commonly related to the allergenic components from their waste material. The severity of dust mite allergies vary from person to person and from mite type to mite type.

Two test samples were evaluated in a modified AATCC 194 test survey. The untreated control sample demonstrated a well-established mite colony, with successive progeny of the mites, and mite eggs. Each test sample, demonstrate a slight reduction relative to the control materials (9% to 11%) relative to the control sample mite counts; but also demonstrated well established colonies exhibiting mite nymphs and eggs.

## Sample List

### Method Name

<i>Sample #</i>	<i>Sample Name</i>	<i>Sample Notes</i>
<b>AATCC 194 - Assessment of the Anti-House Dust Mite Properties of Textiles under Long Term Test Conditions</b>		
1	T25/45 cinnamon	
2	T25/45 zeolite	
3	Untreated Control	


# Result Table

Contact	Globe Industries Ltd.	Plamen Dimitrov
Title	Antimicrobial Test	
Project ID	1015-BPT-01 -- 4	Entry Date 12/2/2015      Test Start Date 12/2/2015

## Result Table \*

Test Method	AATCC 194 - Assessment of the Anti-House Dust Mite Properties of Textiles under Long Term Test Conditions	
Sample #	1	T25/45 cinnamon
	Interval	Result
Inoculum	<i>D. farinae</i> ()	
<small>Notes Section</small>		
3357 mites recovered (+/- 537) /g material	6 wk	11.9 % Reduction

Test Method	AATCC 194 - Assessment of the Anti-House Dust Mite Properties of Textiles under Long Term Test Conditions	
Sample #	2	T25/45 zeolite
	Interval	Result
Inoculum	<i>D. farinae</i> ()	
<small>Notes Section</small>		
3468 mites recovered ( +/- 554) /g material	6 wk	9.8 % Reduction

Test Method	AATCC 194 - Assessment of the Anti-House Dust Mite Properties of Textiles under Long Term Test Conditions	
Sample #	3	Untreated Control
	Interval	Result
Inoculum	<i>D. farinae</i> ()	
<small>Notes Section</small>		
2180 mites recovered (+/- 348) /g material	0 wk	-
3846 mites recovered (+/- 615) /g material	6 wk	-
<b>Image:</b>	representative image	
<small>dust mite <i>Dermatophagoides farinae</i> (<i>D. farinae</i>)</small>		

### Test Method - Additional Information

#### AATCC 194 - Assessment of the Anti-House Dust Mite Properties of Textiles under Long Term Test Conditions

Express results as percent reduction versus the control, using the following formula:

where:  $R = (A-B)/A * 100$

$R$  = percent reduction of the test specimen versus the control.

$A$  = the mean number of dust mites found on the control specimen.

$B$  = the mean number of dust mites found on the test specimen.

For a valid test: If a healthy mite colony has been established on the negative control specimens during the six week test period, mites on the internal lab control do not need to be recovered and counted. However, if the mite numbers on the negative controls are lower than expected for a control in this time period, mites from the internal lab control must numbers outside of the normal range of mites previously established for each of the internal controls, invalidate the test.

Standard statistics cannot be established due to the inherent variability of different test samples. The standard deviation for dust mite counting with the internal control material is +/-16%.

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*d p satchell Ph.D.*  
Technology Director

# Report Addendum

Thursday, January 28, 2016

Project ID **1015-BPT-01 -- 4**    Entry Date 12/2/2015    Test Start Date 12/2/2015

## Image Table

**Sample #** 3    **Untreated Control**

**Test Method** AATCC 194 - Assessment of the Anti-House Dust Mite Properties of Textiles under Long Term Test Conditions

**Inoculum** *D. farinae*

*Image:*    representative    6 wk

**Result Note** 3846 mites recovered (+/- 615) /g material



*dust mite Dermatophagoides farinae (D. farinae)*