



August 09, 2013

Antimicrobial Assessment of Two PVC Samples

2913035

Two PVC samples, treated with Ultra-Fresh DW-56 and/or Ultra-Fresh DW-30, were received from ABITEX (Ref # 005/TRA-22.07.2013) on July 25, 2013. At Thomson Research Associates Inc., the samples were tested for antimicrobial activity using a quantitative test method.

PROCEDURE

Quantitative Antibacterial Assessment:

ISO 22196:2011 was used to quantitatively test the specimen for antibacterial activity. In brief:

1. The sample was placed into a container with a lid.
2. A 0.3 mL inoculum of *Staphylococcus aureus* (ATCC #6538) was placed, in microdroplets, on the surface of the samples.
3. The specimen was incubated 24 hours at 37C.
4. 20 mL of Lethen broth was added to the container and shook. The liquid was plated using dilution techniques.
5. The “Value of Antimicrobial Activity” was carried out using the formula

$$R = [\log (B/C)]$$

Where:

R= value of antimicrobial activity

B = Average of the number of viable cells of bacteria on the untreated test piece / inoculum control after 24 hours

C = Average of the number of viable cells of bacteria on the antimicrobial test piece after 24 hours.

THOMSON RESEARCH ASSOCIATES INC.

49 Gervais Drive, Toronto, Ontario, Canada, M3C 1Y9

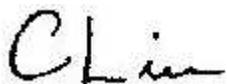
Tel: 416.955.1881 • Fax: 416.955.1887 • Email: lab@ultra-fresh.com

Ultra-Fresh is a registered trademark of Thomson Research Associates Inc.

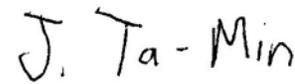
RESULTS

Quantitative Assessment of Activity - ISO 22196:2011						
<i>S. aureus</i>						
Concentration of starting inoculum				1.82 x 10 ⁵		
Sample Description		No. Bacteria Recovered	Log Value	R = [log(B/C)]	% Reduction	
1	A, Blue one with Ultra-Fresh DW-30 in the middle of the sheet	Coated	3.28 x 10 ¹	1.5	4.6	>99.9%
		Non-coated	<2.00 x 10 ¹	<1.3	>4.8	>99.9%
2	B, Magnum Easy Clean orange with Ultra-Fresh DW-30 in the middle of the sheet and Ultra-Fresh DW-56 on the surface	Coated	<2.00 x 10 ¹	<1.3	>4.8	>99.9%
		Non-coated	<2.00 x 10 ¹	<1.3	>4.8	>99.9%
Inoculum Control		1.16 x 10 ⁶	6.1	---	---	

THOMSON RESEARCH ASSOCIATES INC.



Microbiology Manager



Microbiologist