

Technical Service Report No.M19/79 replacement report

Colan Australia
Huntingwood

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Please note that any conclusions and recommendations, either made or implied, are based on information drawn from examination of the samples identified in this report only. These results may be influenced by, for example, contamination level variations in raw materials, any stored component solutions and manufacturing equipment, or changes in formulation, manufacturing procedure or raw material suppliers.

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OBJECTIVES:

To provide a quantitative evaluation of the antibacterial activity in a sock sample as demonstrated by AATCC Test Method 100-2012, Antibacterial Finishes on Textile Materials: Assessment of.

SAMPLES:

The following sample was received at the laboratory on 05/02/2019 and testing commenced on 19/02/2019

Sample	Description
1	Ankle sock thin ()

EXAMINATIONS:

AATCC Test Method 100-2012, Antibacterial Finishes on Textile Materials: Assessment of

VARIATION:

Klebsiella pneumomiae ATCC 10031 was used in place of *Klebsiella pneumomiae* ATCC 4352

CONCLUSION:

The samples tested showed no antimicrobial activity against either test organism over the 24h contact period.

RESULTS:

Table No. 1 Recovery of test organisms

Sample		<i>Staphylococcus aureus</i> ATCC 6538P		<i>Klebsiella pneumoniae</i> ATCC 4352		Number of swatches
		CFU/sample	R value	CFU/sample	R value	
1. Ankle sock thin ()	A 24hr	1.3 x 10 ⁷	N/A	1.9 x 10 ⁷	N/A	1
	B 0hr	1.3 x 10 ⁵		1.1 x 10 ⁵		1
2. Filter Paper - Whatman No:1 (Untreated Control)	A 24hr	1.2 x 10 ⁷	N/A	8.2 x 10 ⁷	N/A	2
	C 0hr	1.1 x 10 ⁵		1.0 x 10 ⁵		2
Inoculum count		1.3 x 10 ⁵		1.1 x 10 ⁵		

N/A = not applicable if the count at 24hr is greater than the count at 0hr.

Value A: average of the number of viable cells of bacteria on the treated test pieces after 24h contact with the inoculum.

Value B: average of the number of viable cells of bacteria immediately after inoculation on the test pieces.

Value C: average of the number of viable cells of bacteria immediately after inoculation on the untreated control pieces.

Value R: % reduction

Conditions of Test Effectiveness

1. The number of test organisms recovered from uninoculated treated test pieces must be <100. Initial microbial recovery from un-inoculated treated sample was not done due to insufficient sample provided.

2. A significant increase in the number of test organisms recovered from the inoculated untreated control test piece after 24hr compared to the numbers immediately after inoculation of the test organisms. The test organisms were prepared in nutrient broth.

Test Procedure:

AATCC Test Method 100-2012, Antibacterial Finishes on Textile Materials: Assessment of, was followed, with no sterilisation of the test pieces.

The test organisms were:

Staphylococcus aureus ATCC 6538

Klebsiella pneumoniae ATCC 10031

Test pieces were prepared by cutting swatches of fabric 4.8 ± 0.1 cm diameter. Sample swatches were stacked and placed into sterile containers. The number of swatches to be tested was determined by the number of swatches that could absorb 1 ± 0.1 ml of inoculum without leaving any free liquid. 1mL of inoculum was evenly distributed onto the surface of the swatches. The inoculum consists of 24hr nutrient broth cultures diluted in further nutrient broth to the desired concentration. The inoculated swatches were incubated for 24hours. After 24hours contact time 100mL of neutralising diluent is poured into the jar and shaken for 1 minute. Serial dilutions are then prepared, and the number of surviving organisms enumerated using the pour plate method with Tryptone Soya Agar.