

# INVIROSHIELD



## InviroShield™ 3.75 Textured Polyolefin

Three coextruded cast polypropylene films were submitted for antimicrobial efficacy testing. The treated film is a multi-layer construction with distribution of the antimicrobial agent isolated to the outer layers (20%). Testing was performed in accordance with JIS Z2801 against three different bacteria. The results are outlined in the tables below.

### *Escherichia coli* NBRC 3972

Film Description	Number of living bacteria		Reduction %	Log Reduction
	Initial	24 hr		
Untreated Control	$3.1 \times 10^5$	$1.0 \times 10^7$	---	---
PP film with additive "A"	$3.1 \times 10^5$	$< 1 \times 10^2$	99.999	5
PP film with additive "B"	$3.1 \times 10^5$	$< 1 \times 10^2$	99.999	5

### *Staphylococcus aureus* NBRC 12732

Film Description	Number of living bacteria		Reduction %	Log Reduction
	Initial	24 hr		
Untreated Control	$2.0 \times 10^5$	$4.0 \times 10^6$	---	---
PP film with additive "A"	$2.0 \times 10^5$	$< 1 \times 10^2$	99.997	4.6
PP film with additive "B"	$2.0 \times 10^5$	$< 1 \times 10^2$	99.997	4.6

### *Salmonella enteritidis*

Film Description	Number of living bacteria		Reduction %	Log Reduction
	Initial	24 hr		
Untreated Control	$1.5 \times 10^5$	$8.9 \times 10^5$	---	---
PP film with additive "A"	$1.5 \times 10^5$	$< 10$	99.999	4.9
PP film with additive "B"	$1.5 \times 10^5$	$< 10$	99.999	4.9

\*Additive "A" and Additive "B" used in the PP films were two distinct silver ion antimicrobial technologies.

These tests were conducted by an independent laboratory and Athens Paper Company Inc. does not assume liability for the accuracy of the results. The above information is believed to be reliable, but does not constitute a warranty of any kind. The characteristics of the film may change depending on frequency of cleaning, cleaning products used, environmental conditions, and so forth. All material should be fully tested by the purchaser to determine suitability of the product's performance related to the final application requirements and should be used and marketed in compliance with any applicable laws.