



# HEELMEDIX

## Antibacterial Protection Assessment

Two heel off-loading boots were assessed using the AATCC Test Method 147 using the test organism Methicillin Resistant Staphylococcus aureus (MRSA)\* for resistance to microbial growth. Heelmedix with built-in Ultra-Fresh protection demonstrated excellent antibacterial activity as compared to an untreated boot sample.

### Introduction:

Pressure ulcer prevention devices, such as pressure relieving boots, can harbor bacteria due to the humid environment that is created by perspiration, as well as an abundance of readily available nutrients. Proliferation of these microbes can cause unwanted odours, staining and product degradation. Ultra-Fresh is a safe, durable, reliable solution that is applied to the fabric during the manufacturing process, becoming an integral part of the device for built-in antimicrobial protection. By inhibiting growth of undesirable microbes, the Ultra-Fresh treated device will remain fresher and cleaner for longer. In this study, we assess the antimicrobial activity of an Ultra-Fresh treated boot as compared to an untreated boot.

### Materials and Method:

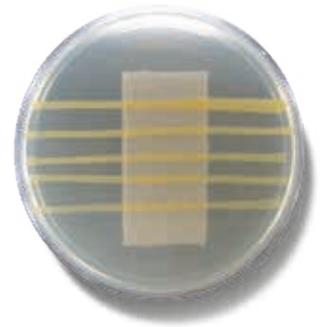
The AATCC Method 147 Test determines the antibacterial activity of a treated article against bacterial test organisms. This is an aggressive test, employing a high number of bacteria under optimum growth conditions. As per the method using an inoculating loop, five streaks of MRSA\* bacteria from a bacterial culture are placed on a nutrient agar plate. The test fabric is placed on the agar plate, on top of the bacterial streaks and the plate is incubated for 24 hours at 37°C. Upon completion of the incubation period, the plates are visually inspected for presence or absence of bacterial growth underneath the test specimen.

### Results and Conclusion:

The Ultra-Fresh treated Heelmedix demonstrated excellent antibacterial activity against the MRSA\* test organism by inhibiting bacterial growth underneath the sample. The untreated boot sample failed to show antibacterial activity, allowing MRSA\* to proliferate. By incorporating the Ultra-Fresh treatment into the Heelmedix design, patients can rest easy knowing the device will remain clean, fresh and odor-free.



Ultra-Fresh treated boot



Untreated boot

AATCC Test Method 147 – Methicillin Resistant Staphylococcus aureus (MRSA)*		
Sample Description	Test Results	
	Visual Observation	Conclusion
Heelmedix treated with Ultra-Fresh	No bacterial growth under specimen	Pass
Untreated pressure relieving boot	Heavy bacterial growth under specimen	Fail

\* Methicillin resistant Staphylococcus aureus (MRSA) is a standard test organism and its use is not meant to indicate any benefits from the Ultra-Fresh treatment other than odor and stain protection and prevention of product degradation.

Ultra-Fresh does not protect users or others against disease causing bacteria.

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