



Bacterial Filtration Efficiency: KIMGUARD ONE-STEP* Sterilization Wrap Compared to Medline Gemini Sterilization Wrap

Barrier to Contamination

The purpose of a sterilization wrap is to maintain the sterility of the items inside a wrapped package until the package is opened. Therefore, a wrap must be able to resist the penetration of bacteria, and must act as a filter to particles that can carry bacteria.¹

Methodology and Interpretation of Results

This test procedure was performed to determine the bacterial filtration efficiency of sterilization wrap, employing a ratio of the bacterial challenge counts to sample effluent counts, to determine percent bacterial filtration efficiency (%BFE). The sterilization wrap samples were challenged with a biological aerosol of *Staphylococcus aureus*.²

Results are reported as percent efficiency and correlate with the ability of the fabric to resist bacterial penetration. Higher numbers in this test indicate better barrier efficiency. Wrap fabrics were compared based on grade as well as basis weight.

Bacterial Filtration Efficiency³ (%BFE)

	Median
KC100	99.9
GEMINI Light Wt.	94.2
KC200	99.8
GEMINI Light Wt.	94.2
GEMINI Regular Wt.	92.0
KC300	99.9
GEMINI Regular Wt.	92.0
GEMINI Medium Wt.	90.0
KC400	99.9
GEMINI Medium Wt.	90.0
GEMINI Heavy Duty	94.4
KC500	99.9
GEMINI Heavy Duty	94.4
GEMINI Super Heavy Duty	97.7
KC600	99.9
GEMINI Super Heavy Duty	97.7

¹ "Recommended Practices for Selection and Use of Packaging Systems," 2001 Standard: AORN Journal v.72, #6, December 2000, pp. 1052-1053.

² This test procedure allowed a reproducible bacterial challenge to be delivered to the sterilization wrap and complies with ATSMF2101. Nelson Lab # 373162.

³ Nelson Laboratories, Inc., Salt Lake City, Utah, "Bacterial Filtration Efficiency," Procedure No. SOP/ARO/007L.1.

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