

Bacterial Filtration Efficiency (BFE) Final Report

Test Article: Item # 1560- Mask
Purchase Order: 06-25-13 mask(1560)
Laboratory Number: 699922
Study Received Date: 02 Jul 2013
Test Procedure(s): Standard Test Protocol (STP) Number: STP0004 Rev 08

Summary: The BFE test is performed to determine the filtration efficiency by comparing the bacterial control counts to test article effluent counts. A suspension of *Staphylococcus aureus* was aerosolized using a nebulizer and delivered to the test article at a constant flow rate. The aerosol droplets were drawn through a six-stage, viable particle, Andersen sampler for collection. This procedure allows a reproducible bacterial challenge to be delivered to test materials. This method complies with ASTM F2101.

All test method acceptance criteria were met.

Test Side: Outside Surface
BFE Area Tested: ~45.6 cm²
BFE Flow Rate: 28.3 Liters per minute (L/min)

Results:

Test Article Number	Percent BFE (%)
1	99.4
2	99.6
3	99.4
4	99.6
5	99.7

Note: Plate count totals for each stage are available upon request.

Mean Positive Control Count: 1,760 colony forming units (CFU)
Negative Control Count: <1 CFU
Mean Particle Size (MPS): 3.3 µm



Study Director

Sarah Smit, B.S.

15 Jul 2013
Study Completion Date