

Company: ACME Magnetic Tapes Ltd

Sponsor: Matthew

Address: 84 Fuk Hi Street, Yuen Long Industrial Estate, Wang Chow, Yuen Long, N.T. Hong Kong

Dear Matthew,

This letter is to summarize the Disposable medical mask results, project number 20-156A.

All testing was conducted in accordance with ASTM F2100-19. The following performance requirements for medical face masks under this standard are as outlined in Table 1.

Testing Facility
Nelson Laboratories, LCC
6280 S. Redwood Rd.
Salt Lake City, UT 84123 U.S.A.

Testing specifications

The following performance requirements for medical face masks under this standard are outlined in Table 1.

Table 1. ASTM F2100-19 Criteria for Level 1, 2, 3 Mask

Test	Testing Standard	Level 1	Level 2	Level 3
Bacterial Filtration Efficiency (BFE, %)	ASTM F2101	≥ 95	≥ 98	≥ 98
Differential Pressure (Delta P, mm H₂O/cm²)	EN 14683:2019, Annex C	< 5.0	< 6.0	< 6.0
Particulate Filtration Efficiency (PFE, at 0.1µm, %)	ASTM F2299	≥ 95	≥ 98	≥ 98
Resistance to penetration by synthetic blood (minimum pressure in mmHg for pass result)	ASTM F1862	≥ 80 mmHg	≥ 120 mmHg	≥ 160 mmHg
Flame Spread	16 CFR Part 1610	Class 1	Class 1	Class 1

Testing Results and Discussion

All testing was conducted in accordance with the referenced standards. The results of the testing are outlined in Table 2.

The results of the testing show that the sample complies with ASTM F2100-19 Level 2 mask.

Table 2. ASTM F2100-19 Testing Results

Assay Title	Test Date	Study Number	Result*	Acceptance Criteria for Level 2 Met (Yes/No)
Bacterial Filtration Efficiency (BFE, %)	31 Mar 2020	1283083-S01	1#:99.9 2#:99.9 3#:99.9 4#:99.8 5#:>99.9	Yes
Differential Pressure (Delta P, mm H₂O/cm²)	31 Mar 2020	1283083-S01	1#:5.1 2#:4.9 3#:4.8 4#:5.0 5#:5.5	Yes
Particulate Filtration Efficiency (PFE, at 0.1µm, %)	31 Mar 2020	1283079-S01	1#:99.71 2#:99.66 3#:99.67 4#:99.66 5#:99.68	Yes
Resistance to penetration by synthetic blood (pressure 120 mmHg)	31 Mar 2020	1283082-S01	32 of test articles tested, 32 passed	Yes
Flame Spread	31 Mar 2020	1283614-S01	Class 1	Yes

**See full test report for more details*