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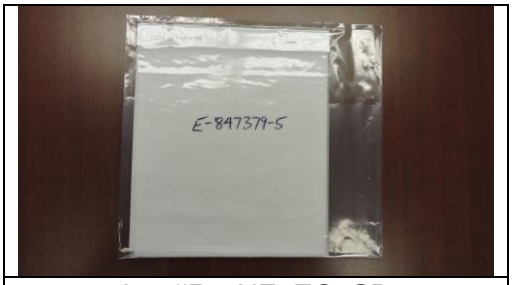
Report For:	Toronto Microelectronics Inc. 6185 Danville Road Mississauga, Ontario L5T 2H7 Phone: 416 738 3261 Email: jamesn@tme-inc.com	**Laboratory #:**	847379-5-20
		Report Date:	November 19, 2020
		Received Date:	October 27, 2020
Attention:	James Nguyen		
Specimen:	#5: Lot #5 – NF+EC+SB		

TEST REPORT

A specimen, consisting of sheet material was submitted to be tested for filtration performance to determine acceptability with Health Canada Interim Order Guidance Document for N95 respirators.



Lot #5 – NF+EC+SB

Cambridge Materials Testing Limited

Per _____
Authorized By Stephen Brown

Per _____
Technician, Derek Wild

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Laboratory #847379-5-20
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PARTICULATE FILTRATION EFFICIENCY & INHALE RESISTANCE

The specimen, consisting of three sheets, was submitted to be tested for determination of the particulate filter efficiency level. The testing was performed by National Research Council (1200 Montreal Road, K1A 0R6) based on the TEB-APR-STP-00059 test procedure for comparison against 42 CFR Part 84.174 and 42 CFR 84.172 requirements. The sheet material was tested as filtration media intended for respirators. See test results herein obtained from NRC.

The NRC standard procedure had consisted of the following:

- The respirators were challenged for 5-minutes under a flow of 42.5 L/min ± 4 L/min with an aerosol of sodium chloride (NaCl) particles with an average count mean diameter in the range of 75 nm ± 30 nm with a geometric standard deviation not exceeding 1.86.
- Conditioning of respirators (C) were performed for 25 ± 1 hour at 85% ± 5% relative humidity and 38ºC ± 2.5ºC and un-conditioning of respirators (U) and tested within 10 hours of extraction from the conditioning chamber as indicated in NIOSH standard procedure TEB-APR-STP-0059.
- Reporting of results of the initial pressure drop across the mask in Pascal (Pa), and initial filtration efficiency in percentage (%).
- Testing of particulate filter efficiency may occur on one of the following systems:

    1. The TSI 8130A Automated Filter Tester. Samples are measured following the procedure MS-6.3 Loading Tests for Evaluation of Filter Efficiency of Respirators. The TSI 8130A laboratory conditions will have the temperature be 25ºC ± 5ºC and the relative humidity be 30% ± 10%.
    2. The Particle Filtration Efficiency Measurement System (PFEMS). Samples are measured following the procedure MASK-200-P. The PFEMS laboratory conditions will have the temperature be 25ºC ± 5ºC and the relative humidity be 30% ± 10%.

RESULTS

#5: Lot #5 – NF+EC+SB

Date Tested	Date Reported	Label	Lot	Conditioned C/U	Test Facility	Aerosol (NaCl/PSL)	Flow Rate (lpm)	Initial Resistance Pa	Initial Filtration %
2020-11-12	2020-11-16	187_E-847379-5_001U	E-847379-5	U	M36-B119	NaCl	42.5	48	99.5
2020-11-12	2020-11-16	187_E-847379-5_002	E-847379-5	C	M36-B119	NaCl	42.5	57	99.5
2020-11-12	2020-11-16	187_E-847379-5_003	E-847379-5	C	M36-406B	NaCl	42.5	51	99.3
							average	**52**	**99.4**
							std dev.	**5**	**0.1**

NRC and CMTL will not make any statements of conformity.

REQUIREMENTS

For N95 masks under 42 CFR 84.174 the minimum efficiency for each filter must be ≥95%.

For N95 masks under 42 CFR 84.172 the maximum allowable inhalation resistance shall be ≤343 Pa, and exhalation resistance of ≤245 Pa.