

IBR JN: 21012A

Performed for: State of Vermont Public Service & Govt

Customer Contact: Raymond Forsell

Customer Location: Vermont

Test Date: 2 - 3 April 2020

Test Method: 42 CFR Parts 84.180 Airflow resistance and 84.181 Particle efficiency test methods (Abbreviated)
**Sample Description: Control Group - Face Mask 3M, 1860, N95 (REGULAR)
Treated Group - Face Mask 3M, 1860S, N95 (SMALL)**

Sample Source: UVM Medical Center

Date Received: 1 April, 2020

Fluid: Air

Flow rate: 85 ± 2 lpm

Contaminant: 0.08µm (±15% CV) Latex Microspheres (Neutralized)

Temp (°C) : 21.0

RH (%) : 43.2

BP (mmHg) : 735.0

Sample ID	Group	Airflow Resistance (Pa)	Particle Counts		Particle Efficiency (%)
			Upstream	Downstream	
21012-1	Control	68	210291	7089	96.63
21012-2	Control	68	216088	8817	95.92
21012-3	Control	74	248087	3056	98.77
21012-4	Control	78	218357	4317	98.02
21012-5	Control	78	263180	4270	98.38
21012-6	Control	64	224966	1520	99.32
21012-7	Control	78	234729	3242	98.62
21012-8	Control	80	228090	2705	98.81
21012-9	Control	82	222347	4150	98.13
21012-10	Control	82	207988	5366	97.42
21021-11	Control	79	232040	2680	98.85
21021-12	Control	65	221036	2058	99.07
21021-13	Control	64	222451	2376	98.93
21021-14	Control	80	208942	5251	97.49
21021-15	Control	82	213550	5797	97.29
21012-31	20x	102	179597	6817	96.20
21012-32	20x	104	218513	7805	96.43
21012-33	20x	96	218816	5234	97.61
21012-34	20x	100	188760	6343	96.64
21012-35	20x	102	220064	4968	97.74
21012-36	20x	101	219042	4706	97.85
21012-37	20x	98	240110	5040	97.90
21012-38	20x	102	229872	6053	97.37
21012-39	20x	98	219577	4464	97.97
21012-40	20x	100	231648	5413	97.66
21012-41	20x	102	212234	5139	97.58
21012-42	20x	102	254892	7247	97.16
21012-43	20x	108	217025	4113	98.10
21012-44	20x	106	198884	4263	97.86
21012-45	20x	102	228955	6695	97.08

Modifications to the test: Samples were tested as received with no humidity conditioning. A near monodispersed polystyrene latex bead (PSL) was used as the contaminant for determining the particle efficiency of the two lots of samples. There was no loading of the filters.

The two groups of masks were of different sizes. The control group was Style 1860 and the treated group was Style 1860S.



Control



Treated

Notice: These data relate only to the samples tested. This report may be copied only in its entirety.

Performed By: RB

Data Location: RB-116



IBR JN: 21012A

Performed for: State of Vermont Public Service & Govt

Customer Contact: Raymond Forsell

Test Date: 2 - 3 April 2020

Customer Location: Vermont

Test Method: 42 CFR Parts 84.180 Airflow resistance and 84.181 Particle efficiency test methods (Abbreviated)

Sample Description: Control Group - Face Mask 3M, 1860, N95 (REGULAR)
Treated Group - Face Mask 3M, 1860S, N95 (SMALL)

Sample Source: UVM Medical Center

Date Received: 1 April, 2020

Anova: Single Factor - Particle Efficiency - Alpha=0.01

SUMMARY

Table with 5 columns: Groups, Count, Sum, Average, Variance. Rows include Control - Style 1860 and 12 Dose - Style 1860S.

ANOVA

ANOVA table with 7 columns: Source of Variation, SS, df, MS, F, P-value, F crit. Row for Between Groups shows F=5.6387 and F crit=7.6356.

Anova: Single Factor - Differential Pressure - Alpha=0.01

SUMMARY

Table with 5 columns: Groups, Count, Sum, Average, Variance. Rows include Control - Style 1860 and 12 Dose - Style 1860S.

ANOVA

ANOVA table with 7 columns: Source of Variation, SS, df, MS, F, P-value, F crit. Row for Between Groups shows F=185.2546083 and F crit=7.635619.

Table with 6 columns: Manufacturer, Model No., Serial No., IBR ID, Range of Use, Cal Due. Lists various equipment like Meriam, Dwyer, Omega, Vaisala, and TSI.

Notice: These data relate only to the samples tested. This report may be copied only in its entirety.

Performed By: RB

Data Location: RB-116

Reviewed by: [Signature] Daniel R. Miller, Air Labs Manager

Table with 5 columns: Revision, Editorial/Technical, Description, Approved by, Release Date. Row 1: Initial release, DRM, 4/4/2020.