



Face Mask Performance Comparison Summary

1st February 2018

REF: O2O2 Face Mask Comparative Performance Pilot Study Report BDL17-03

Scope

Data obtained from BioDesign Lab pilot study report, BDL17-03, has been re-analysed to provide a numerical value that enables direct evaluation of the difference in performance between the O2O2 mask and commercially available filtration systems.

To simplify this comparison, the mean of the smoothed spline trend lines of raw data acquired are presented as a single number.

Results

Values compared to O2O2 mask (magnitude higher) i.e. 10-13 = 10 to 13 times higher

Mask	Pressure Fluctuation	Mask Temp above ambient	Count of particles between 0.3 – 0.5	Pm1 concentration	Pm2.5 concentration	PM10 concentration	Mask Relative humidity	Peak CO2 levels
Neoprene Sports Antipollution Mask	10-13	1.6-3	33-40	20-40	25-50	30-75	1.25-1.4	2.5-11
NIOSH certified N95	7-10	1.8-3	5-10	3-10	5-25	5-25	1.25-1.7	2.5-10
NIOSH certified Double Barrelled Elastomeric Mask	13-20	1.6-2.5	10-26	10-15	20-25	25	1.25-1.6	2.3-10

A handwritten signature in black ink that reads 'D White'.

Dr David White

Director AUT BioDesign Lab