



# A simple and universal non-woven product line for all your RPE needs

NanoWave® ESA Technical Data Guide

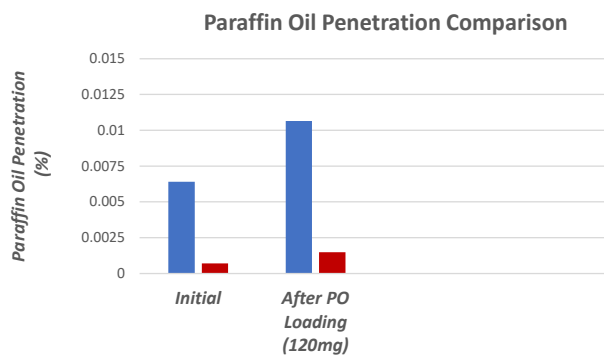


**HV** NanoWave® | **ESA**  
A Hollingsworth & Vose Innovation

NanoWave® ESA is the latest innovation from Hollingsworth & Vose: a 3-D composite that is all synthetic and designed specifically for particulate respiratory protection. Smaller filter designs, higher efficiencies, using zero-added PFAS chemistries are the 3 pillars of future RPE products. NanoWave® ESA performance answers such needs.

## EN143 P3 Performance<sup>1</sup>

### Penetration, Resistance, and Filter Life



#### EN143 P3 Filter:

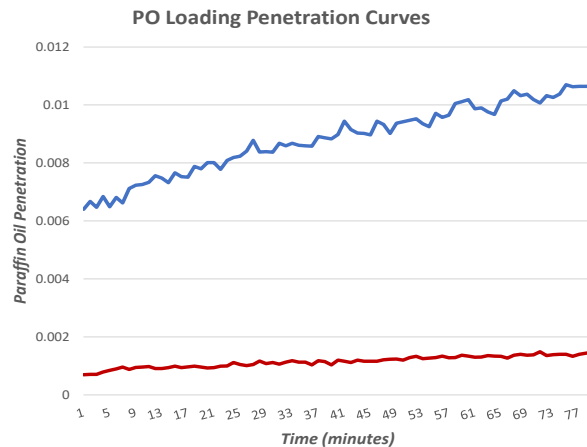
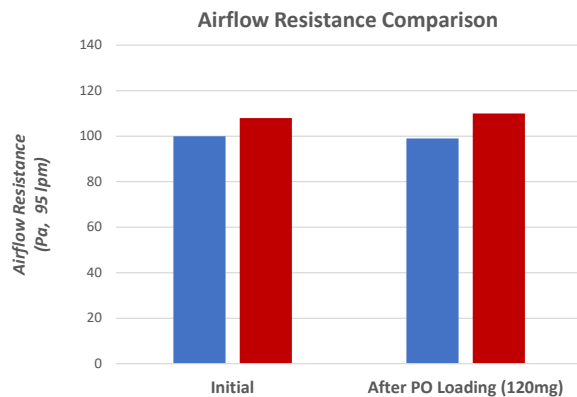
- RPE Producer #1 Competitor
- RPE Producer using NanoWave® ESA

Flow: 95 LPM

Filter area: ~300 cm<sup>2</sup> total

Testing agent: Paraffin Oil (PO)

PO loading: 120mg



### EN143 P3 Performance

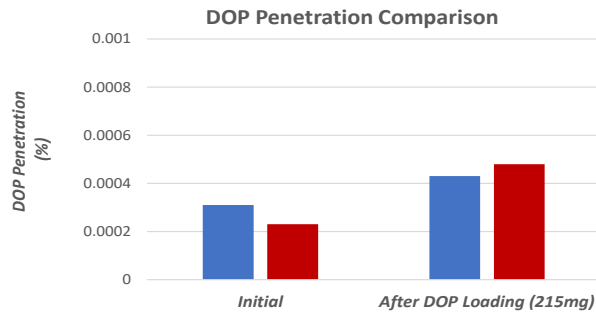
- NanoWave® ESA enables statistically identical resistance compared to the RPE market leader of P3 pancakes.
- Other NanoWave® ESA materials are available to enable smaller filter sizes.\*
- RPE producers can offer significantly better protection for all-day wear when compared to the RPE market leader of P3 pancakes.

\* vs. conventional designs.

<sup>1</sup> Other efficiencies available upon request

## NIOSH 42 CFR part 84 P100 Performance<sup>1</sup>

### Penetration, Resistance, and Filter Life



#### NIOSH P100 Pancake Filter:

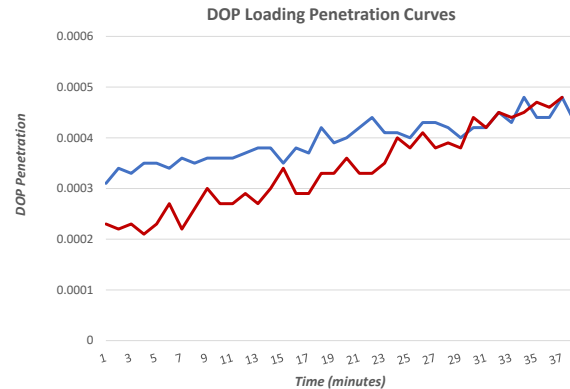
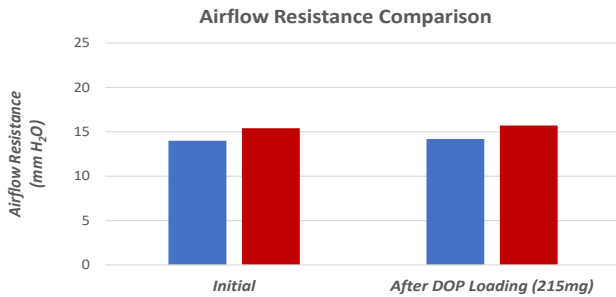
- RPE Producers #1 Competitor
- RPE Producers using NanoWave® ESA

Flow: 85 LPM

Filter area: ~300 cm<sup>2</sup> total

Testing agent: Dioctyl Phthalate (DOP)

PO loading: 215mg



### NIOSH 42 CFR part 84 P100 Performance<sup>1</sup>

- Our NanoWave® ESA product line contains zero added PFAS, P100 efficiency included!
- NanoWave® ESA enables statistically identical resistance compared to the RPE market leader of P100 pancakes.
- Other NanoWave® ESA materials are available to enable smaller filter sizes.
- RPE producers can offer the same or better performance for all-day wear when compared to their No. 1 competitor.

<sup>1</sup> Other efficiencies available upon request