

Lynn River

Benefits of incorporating Helix™ Filter Media

'WHY' choose a HELIX Filter inside a Mask:

- The same Helix filter technology used for Space program and being used for consumers too
- 2X to 3X fold better to breathe through than normal Masks or Respirators (2-3X less effort on your lungs to breath through the filter in this mask vs other ones)
- The breathing resistance is approx 68-100 Pascals unit (vs 240 Pascals unit of resistance in most other masks on the market). A napkin has breathing resistance about 30 Pascals, so 2-3 napkin layers of resistance vs 8 napkins in a traditional mask.
- If breathing resistance is high, then people find it uncomfortable to wear & therefore will make the mask have air-leaks when they create holes/leakage (that is why glasses fog up when u breath = there is air leakage because it's hard to breathe through the filter & so air finds leak paths to escape out of the mask)
- To give context, 0.3 micron is about the size of viruses (and other allergen particles), 3 micron is about the size of small bacteria. The smaller the particles, the more damaging to health since it can penetrate through cell walls, which is why pollutants have been found inside human body & affecting brain.
- The filter inside this mask can remove 99% of 3 microns & 0.3 micron size particles in the air at 95L per min air flow (or "running breathing pace"). Imagine about 1.5L of air per second of breathing, equates to 95L per min. Which means it's also good for using this mask during exercise/sports
- Wool can handle moisture, and so when u breathe in & out, your face do not feel 'wet' from your breath, whereas other masks can feel damp because of 'condensation'
- Wool filter has a higher dust-loading capacity
- Wool filter is a powerful electrostatic which captures more & holds more particles than conventional filters
- Wool fibres can capture some toxin gases & make them inert / passive
- Wool fibres are naturally bacteria-resistant, ie. bacteria do not like to grow on the fibres

Some prominent news on pollution effects of invisible particles:

<https://www.who.int/air-pollution/news-and-events/how-air-pollution-is-destroying-our-health/children-and-air-pollution>

<https://www.who.int/ceh/publications/air-pollution-child-health/en/>