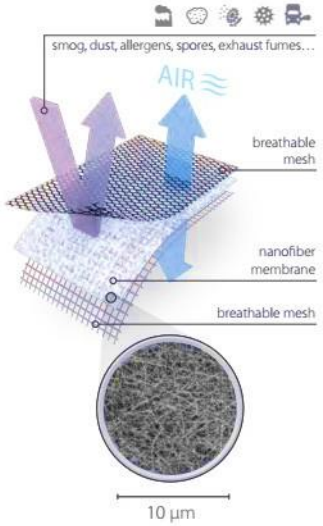
RESPILON
Life's worth it

RESPILON WINDOW MEMBRANE 6.0

(RWM 6.0)

RWM 6.0 is the new generation of RESPILON's window membranes for the filtration of outdoor air.



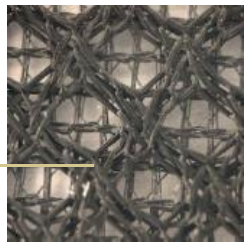
The importance of clean air

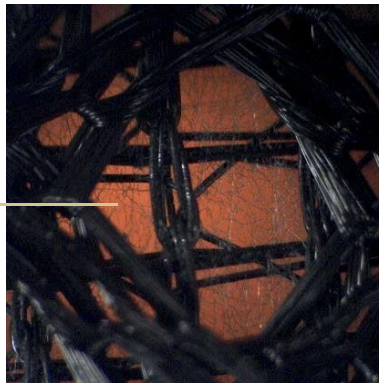
Air pollution is one of the most dangerous threats to our health. Every day a person breathes in about 11,000 liters of air. The air is often contaminated with smog, dust, exhaust fumes, spores and pollen that enter the respiratory tract. Data published by the World Health Organization (WHO) shows that almost all of the world's population (99%) breathes air that exceeds WHO guidelines and contains high levels of pollutants. Air pollution is responsible for nearly 7 million premature deaths each year*. Clean indoor air can reduce this burden.

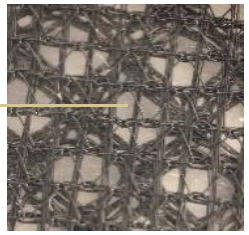
Top layer: PET Polyethylene terephthalate

Membrane: PVDF Polyvinylidene fluoride

Bottom layer: PET Polyethylene terephthalate

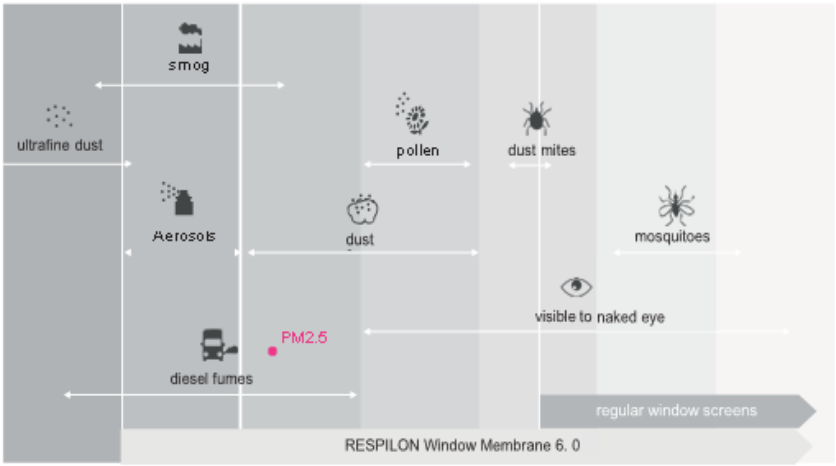






What are the main air pollutants?

The types and abundance of air pollutants are closely linked to the exact location and time of year.



* https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health

Aerosol Technology: Properties, Behavior, and Measurement of Airborne Particles. William C. Hinds, Yifang Zhu, 1999.

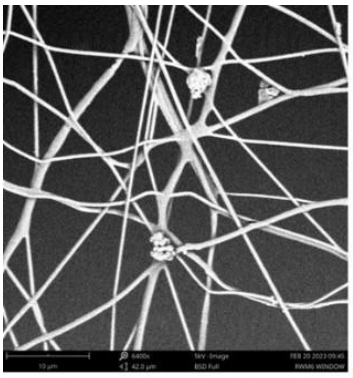
	Regular window screen	RESPILON® Window Membrane 6.0
Description	✗ An obsolete product, not efficient against current threads	✓ High-tech nanofiber solution to protect against air pollution
Material	✗ Fiberglass, aluminum, steel	✓ Nanofiber, polymeric mesh
Filtration efficiency	✗ Fails to capture the most hazardous particles	✓ Captures even the smallest dust, smog and PM2.5 particles
Toughness	✗ Vulnerable to corrosion, and more susceptible to mechanical damage	✓ Highly resistant because of a solid knitted structure
Health hazards	✗ Prolonged exposure to the external environment causes the fiberglass to degrade, releasing carcinogenic particles that are hazardous to human health.	✓ Polymers used in the membrane do not release any harmful substances or particles
Additional etfects	✗ Ineffective against UV light and rainwater	✓ Reduces UV light passing through, keeps rain out

RWM 6.0 filtration properties

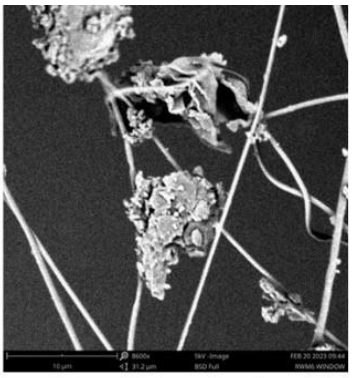
The RWM 6.0 test results show that the membrane is highly efficient at removing PM2.5 and coarse particles.

	Filtration efficiency test result for RWM 6.0					
Run No.	> 0.3 micron	> 0.5 micron	> 1.0 micron	> 2.5 micron	> 5 microns	> 10 microns
Removal Efficiency	59.66%	78.74%	92.83%	98.23%	99.73%	99.93%

The key advantages of the new RWM 6.0

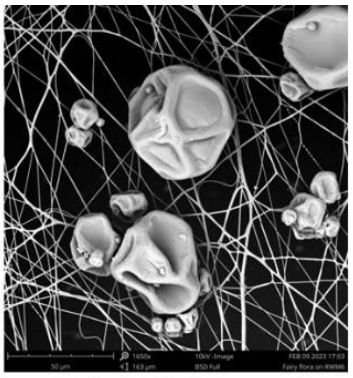


Fine dust particles

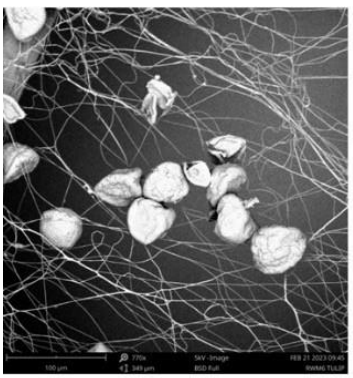


Fine dust particles

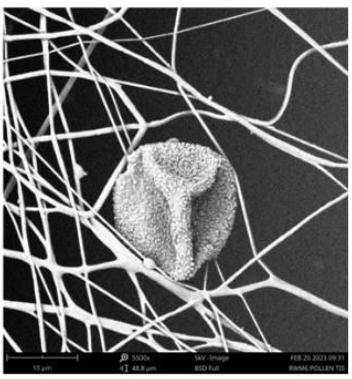
Coarse dust particles



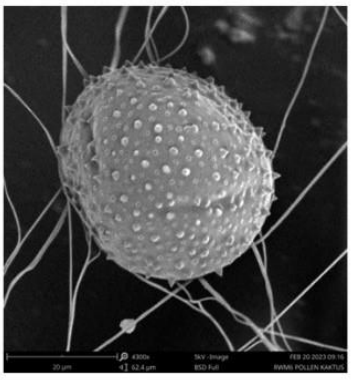
Bacterial spores



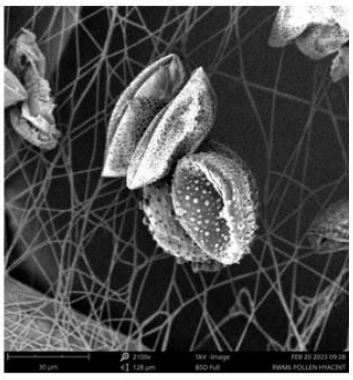
Pollen (tulip)



Pollen (Taxus)



Pollen (Cactus)



Pollen (Hyacinth)