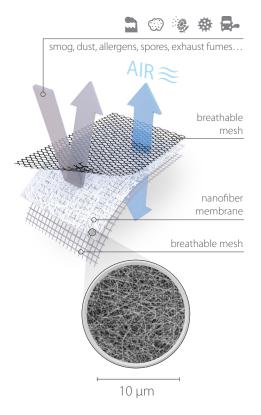


### Health protection and comfort of the 21st century





### Why is air quality becoming an increasingly discussed topic?

WHO has classified fine dust as a class 1 carcinogen.

Dust and smog endangers our health even indoors. Most people spend 90 % of their time indoors where they should breathe clean air. RESPILON® gives you an excellent opportunity to present your customers with a unique solution which will provide them with a CONTINUOUS AND RELIABLE SOURCE OF CLEAN AIR.

### **VULNERABLE GROUPS**

- ✓ Senior citizens
- ✓ Children
- ✓ Pregnant women
- ✓ People with respiratory problems
- ✓ People with heart disease

### **BENEFITS FOR USERS**

- ✓ Clean air in all conditions
- ✓ Airing possible even in dusty areas
- ✓ Saves time with dusting
- ✓ Can be used all year round
- ✓ Easy to maintain

#### PROTECTION FROM



Smog



Dust



Pollen particles



Exhaust fumes

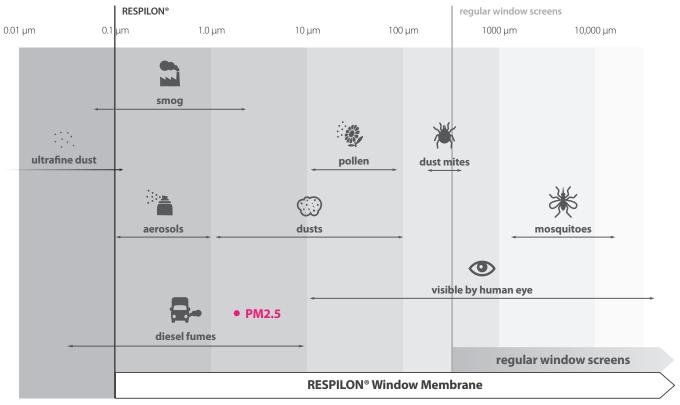


Rain water



## Which particles does nanofiber membrane protect you from?

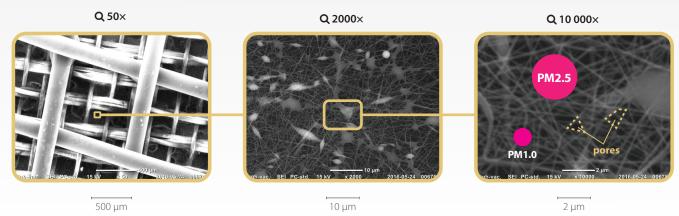




 $Source: Aerosol \, Technology - \textit{Properties, Behavior, and Measurement of Airborne Particles}. \, William \, C. \, Hinds, \, 1999. \, Although \, C. \, Hinds, \, 1999. \, A$ 



### How does RESPILON® work?



Nanofiber membrane creates a mechanical barrier which prevents the penetration of dangerous particles without using any dangerous chemical substances.



## Why choose RESPILON® window membrane over anti-pollen screens?



### **Results of Independent filtration testing**

|  | Leading competitor's anti-pollen screen           | Competitor's anti-pollen screen                    | RESPILON® Window<br>Membrane 5.0 |
|--|---|--|----------------------------------|
| Filtration<br>efficiency:<br>1.0 µm<br>particles | 20.3 %  | 21.7 %   | 87.4 %                           |
| Filtration efficiency: 2.5 µm particles          | 23.0 %  | 28.6 %   | 89.4 %                           |
| Filtration efficiency: 5.0 µm particles          | 31.9 %  | 39.8 %   | 94.1 %                           |
| Sample:  | 500x 20.0 μm 10: 7.4mm 15kV 2016/09/15 14:13:36 S | 500x 20.0 µm WB; 7.2mm/ 15kV 2016/09/15 14:00:00 8 | Q 500× Q 10,000×                 |

Efficiency was measured with the constant airflow of 1.2 l/m.



 $1.0 \, \mu m = PM1.0$ 

diesel fumes particle size



 $2.5 \mu m = PM2.5$ 

smog particle size



# Why choose RESPILON® window membrane over anti-pollen screens?



|                        | Regular window screen  | RESPILON® Window Membrane  |
|------------------------|--|--|
| Description:           | Obsolete product, not efficient against current threats  | Premium product, high-tech nanofiber solution against air pollution              |
| Material:              | Glassfiber, aluminium, steel   | Nanofiber, breathable 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 solid nanofiber structure                            |
| Service life:          | Longtime exposure to external environment causes glassfiber to break down and release carcinogenic particles which are extremely dangerous to human health | Polymers used in the membrane do not release any harmful substances or particles |
| Additional effects:    | Ineffective against UV light and rainwater   | Does not transmit the UV component of the light spectrum                         |



## What do you gain by incorporating nanofiber window membrane into your portfolio?

- supplies of nanofibrous material directly from the manufacturer
- innovative product with high added value without the need to invest in new equipment
- modern technology demanded around the world
- service support with the opportunity to participate in further development and improvement
- marketing support for sales to end customers



Contact

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