



pure

THE MOSQUITO NET AND WINDOW FILTER VENTILATION AND MICRO-VENTILATION



PERSAX[®]
feel the space

SCREEN PURE



The health consequences of pollution are numerous, both in the short and long term. Urban pollution increases the risk of suffering from acute respiratory diseases, such as bronchitis or pneumonia, and chronic diseases, such as lung cancer and various cardiovascular diseases. On the other hand, they also affect the brain development of children. Protect your home and your health from air pollution (smog, soot, exhaust fumes, etc.) and allergens such as pollen, spores, or dust.

PURE is a window filter made of Respilon high-tech nano-filter fabric, which offers 5 advantages in:

- Mosquitoes
- Pollen
- Dust
- Pollution
- Aerosols



5 IN 1 MAIN CHARACTERISTICS

ANTI POLLEN

The PURE PERSAX micro window ventilation and natural ventilation filter fabric are an exceptional protection against pollen allergies.

Capable of filtering up to four times more pollen than leading competitive screens.

MOSQUITOS REPELLENT

Equally or more effective against mosquitoes and other insects than a normal screen.

ANTI-AEREOSOL

It does not replace the filters of a mechanical ventilation system if necessary but, helps to keep the area freer of aerosols. Regarding the effectiveness of the filtering, the possibility of entry through the joints should be considered.



ANTI-DUST

The World Health Organization has classified fine dust as a first level carcinogen.

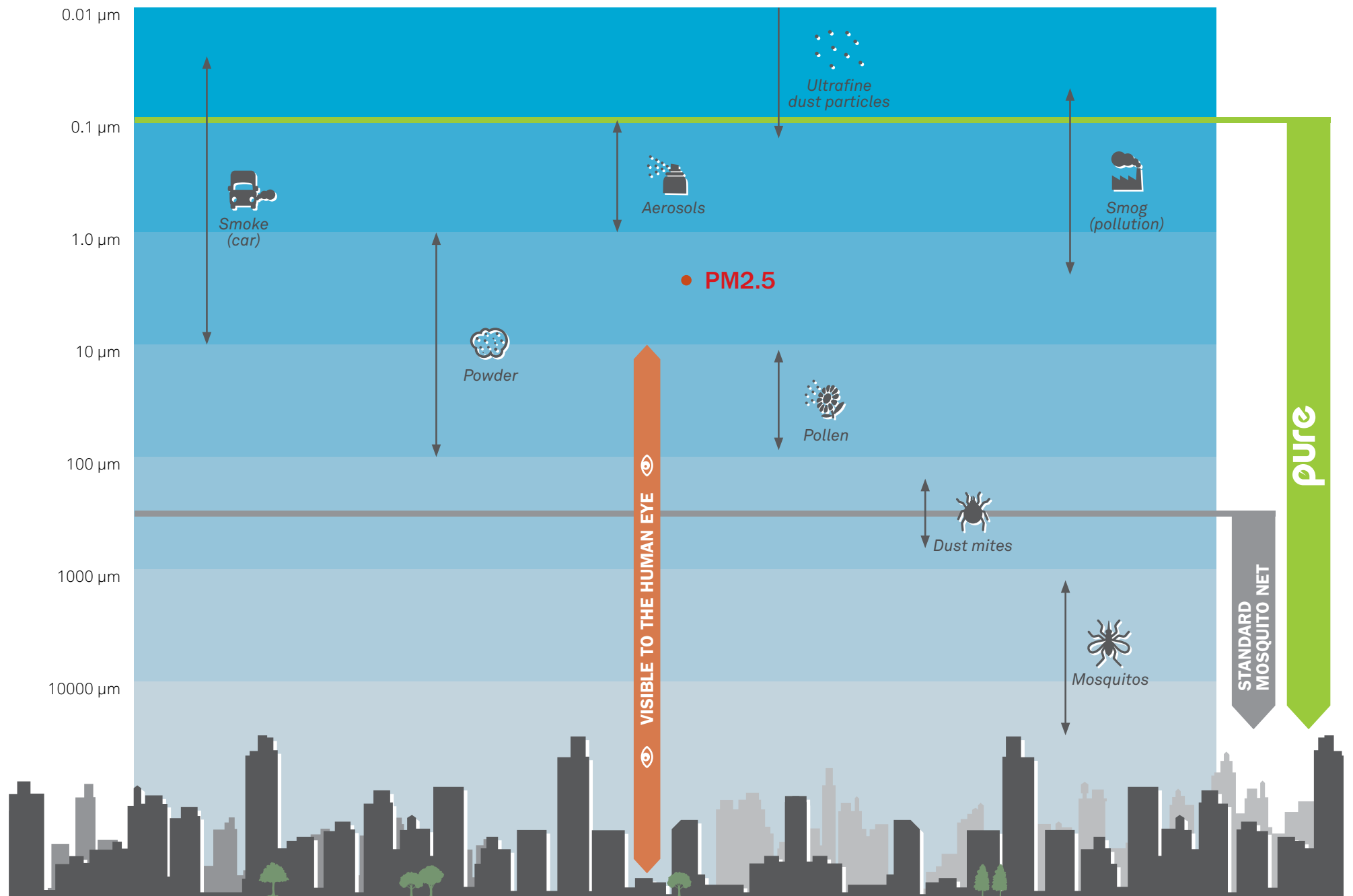
RESPILON fabric blocks 100% of particles larger than 10 μm (typical dust particle size) according to tests, improving room cleanliness and reducing health risks.

ANTI-POLLUTION

Smog is the low smoke cloud of carbon dioxide, soot, smoke, and airborne dust that forms over large cities or industrial centers.

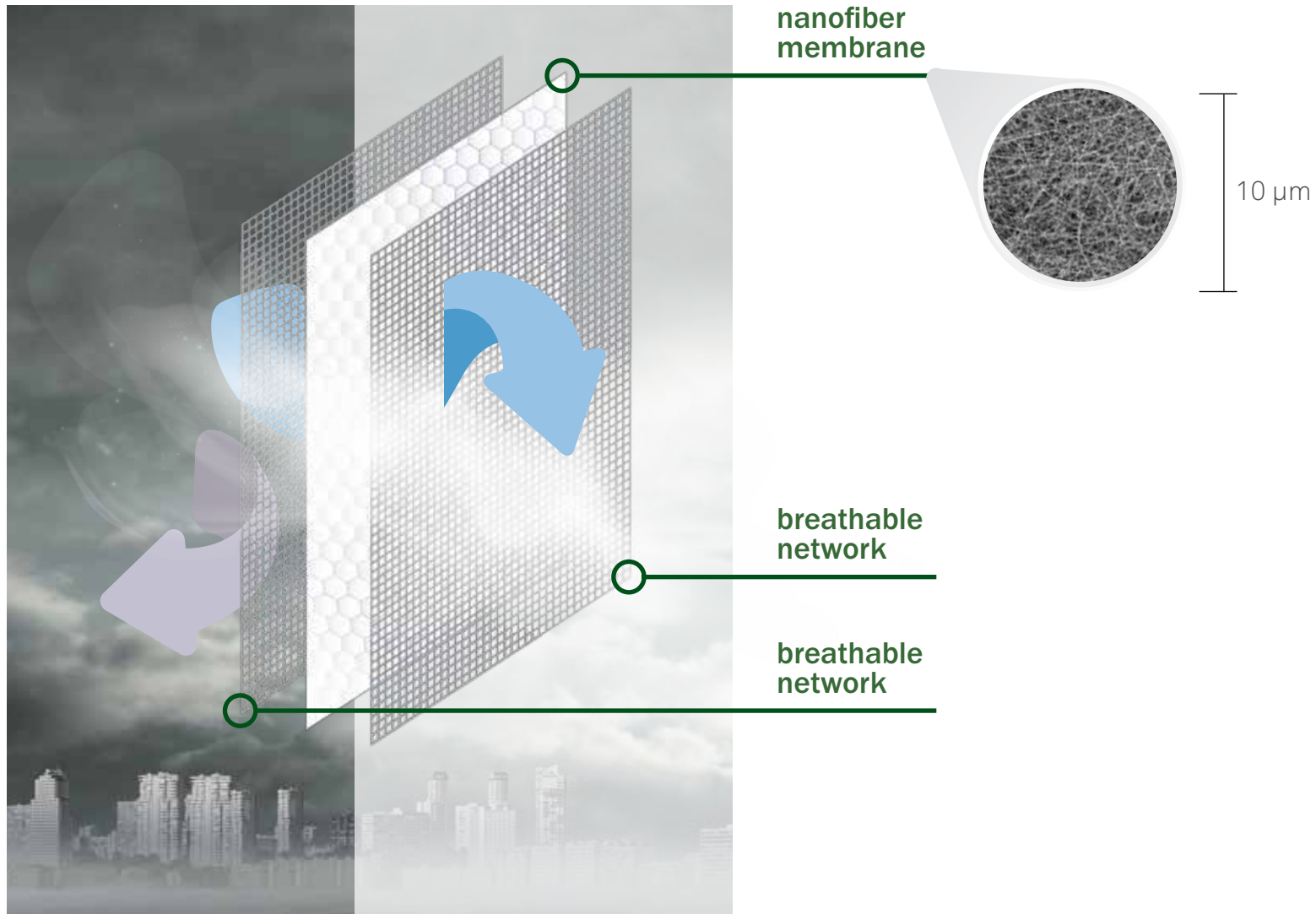
PURE PERSAX can filter out a relevant part of the smog.

This makes it ideal to install as a natural ventilation filter in the windows of highly polluted cities.



LITERARY SOURCE: Aerosol technology - Properties, Behavior, and Measurement of Airborne Particles, William C. Hinds, 1999

STRUCTURE OF THE PURE FILTER



THE ELECTION OF PURE

IDEAL IMPLEMENTATION ENVIRONMENTS

- The system to be installed in windows with or without micro-ventilation, as a natural ventilation filter.
- Homes with allergic or asthmatic people
- Homes with people with respiratory, pulmonary, and cardiovascular disorders in polluted areas.
- Hospitals, in zones annexed to “dirty” zones to which it is possible to limit the entrance of the dirt.
- Day-care centers, in zones annexed to “polluted” zones to which it is possible to limit the entrance of the dirt.
- Geriatric, in areas annexed to “dirty” areas to which it is possible to limit the entry of dirt.
- Cities with pollution problems in general.
- The zones of drying of clothes (less dirt for the clothes).
- Dwellings with children



Filtration efficiency for **1.0 µm** particles

Filtration efficiency for **2.5 µm** particles

Filtration efficiency for **5.0 µm** particles

Sample



Leading Pollen Shield	Skilled Pollen Shield	Respilon 5.0 PURE membrane
20.3%	21.7%	87.46%
23.0%	28.6%	89.43%
31.9%	39.8%	94.12%

500x	500x	500x	1000x

The efficiency of the PURE Membrane 5.0 µm window was measured with a constant airflow of 1.2 l/m



Diesel smoke particle size

1.0 µm = PM 1.0























Particle size of pollution clouds

2.5 µm = PM 2.5

STANDARD SCREEN vs. PURE SCREEN



	Standard mosquito net fabric	RESPILON® PURE® mosquito net fabric
Description	Traditional product	High-tech product. Adapted to the current situation and knowledge over the current risks.
Materials	Fiberglass and PVC	Nanofiber fabric
Filtration efficiency	It does not filter the air; it only prevents the entry of insects.	Captures dust, smog and 2.5 µm particles
Resistance	More sensitive to mechanical damage	High strength due to solid nanometric structure
Mosquito repellent	 	 
Anti-pollen	 	 
Anti-pollution	 	 
Anti-dust	 	 
Anti-Aerosol	 	 

PURE FABRIC FEATURES

The RESPILON PURE mosquito net / window filter is intended to be installed in openings and windows of buildings. Its main purpose is to form a barrier against pollen, dust, and air pollution. It is also able to stop the spread of mold and spores, while being highly permeable to air, gases, and water vapors.

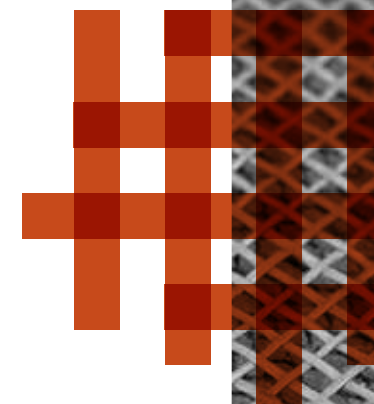
TECHNICAL DATA OF THE RESPILON PURE® MEMBRANE

		Type of test / institution / instrument
Weight	170 ± 5 g/m ²	ISO 536
Size	0,48 mm ± 0.05 mm	ISO 9073 2
Percentage by weight of dust retained by the filter ⁽¹⁾	89,1 %	ASHRAE STANDARD 52.1, SYNTETIC DUST WEIGHT ARRESTANCE
Breaking strength	487,0 N	KS K 0350:2001
Air permeability <i>Pressure difference 125Pa</i>	329,6 cm ³ /cm ² /s	JIS L 1096:2010 8.25 METHOD A
Visible radiation transmission	40,4 %	UV-Vis NIR Spectrophometer (PerkinElmer_Lambda 1050)

(1) Tested conditions: airflow 1m/s. Final resistance: 76mmAq

COMPOSITION OF THE RESPILON PURE® MEMBRANE

		Case number
PET	35 g/m ² (20.6%)	25038.59-9
PVDF	2 g/m ² (1.2%)	24937-79-9
PVC	80 g/m ² (47.0%)	9002-86-2
Continuous filament glass fiber fabric	53 g/m ² (31.2%)	65997-17-3



FILTRATION EFFICIENCY OF RESPILON PURE®

Particle size	Value
> 0,3 µm	63,08 %
> 0,5 µm	79,78 %
> 1 µm	87,46 %
> 2,5 µm	89,43 %
> 5 µm	94,12 %
> 10 µm	100,00 %

Test: 7191237181-CHM20-YMG

RESPILON PURE® ULTRAVIOLET BLOCKING

Type of radiation	Value
UV-R	67,7 %
UV-A	67,0 %
UV-B	69,3 %

Test Type: AATCC 183:2014

The indications are average results. They are subject to the usual production variations. These indications are given to the best of our knowledge for the information of our products.

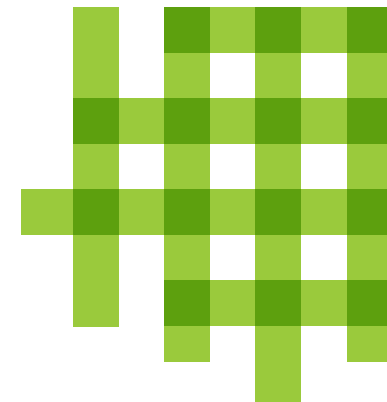
These indications cannot be used as a fixed promise.

To maintain the best filtration, use the grey rib as the outer side. The grey side should face the particles you want to stop.

Up to 2% surface imperfections, normal for the production process, are allowed.

The unique filtering ability of the membrane is provided by a layer of nanofibers enclosed in the membrane. Technically, the RESPILON® PURE® window membrane is a three-layer laminate containing a breathable mesh and a layer of nanofibers. The textile components used in the membrane are UV stabilized. Compactness is guaranteed by the material's layering.

The RESPILON PURE window filter is suitable for allergy and asthma sufferers, as well as for people with cardiovascular disorders or lung diseases who live in areas or regions with high air pollution.

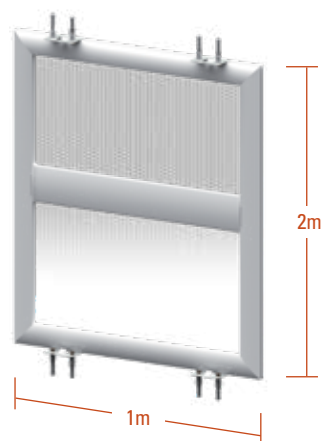


PURE[®] COMPATIBLE SYSTEMS

The RESPILON PURE window filter is compatible with most PERSAX screen systems.

FIXED SCREEN

Maximum size: **2m height x 1m width**



ROLLER SCREEN C42

Maximum size: a. (horizontal orientation) **1.70m height x 1.45m width**

b. (vertical orientation) **1.45m height x 2.00m width**

Maximum size **DOUBLE**: a. (horizontal orientation) **1.70m height x 2.90m width**

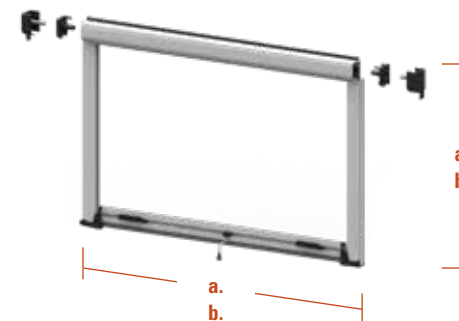
b. (vertical orientation) **1.45m height x 4.00m width**



ROLLER SCREEN C42 TELESCOPIC

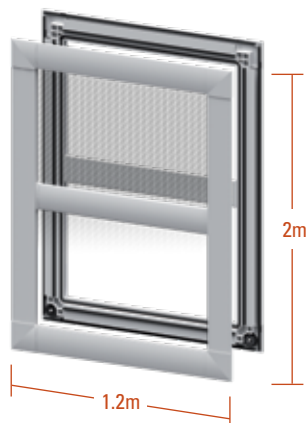
Maximum size: a. (horizontal orientation) **1.70m height x 1.45m width**

b. (vertical orientation) **1.45m height x 2.00m width**



SLIDING SCREEN

Maximum size: **2m height x 1.2 width**



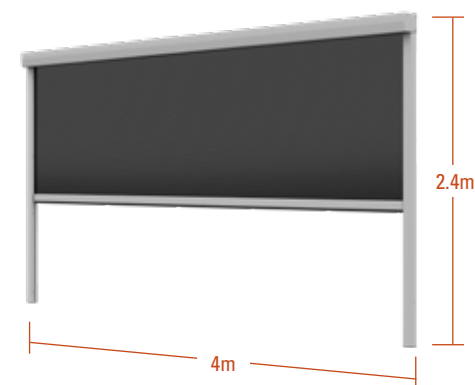
FOLDING SCREEN A-1

Maximum size: **2.2m height x 1m width**

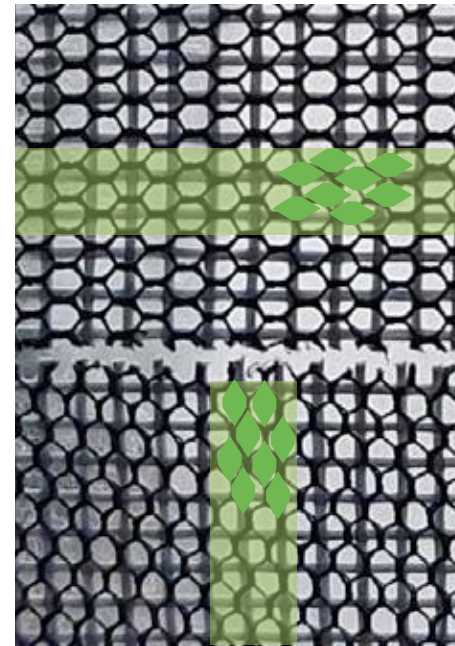
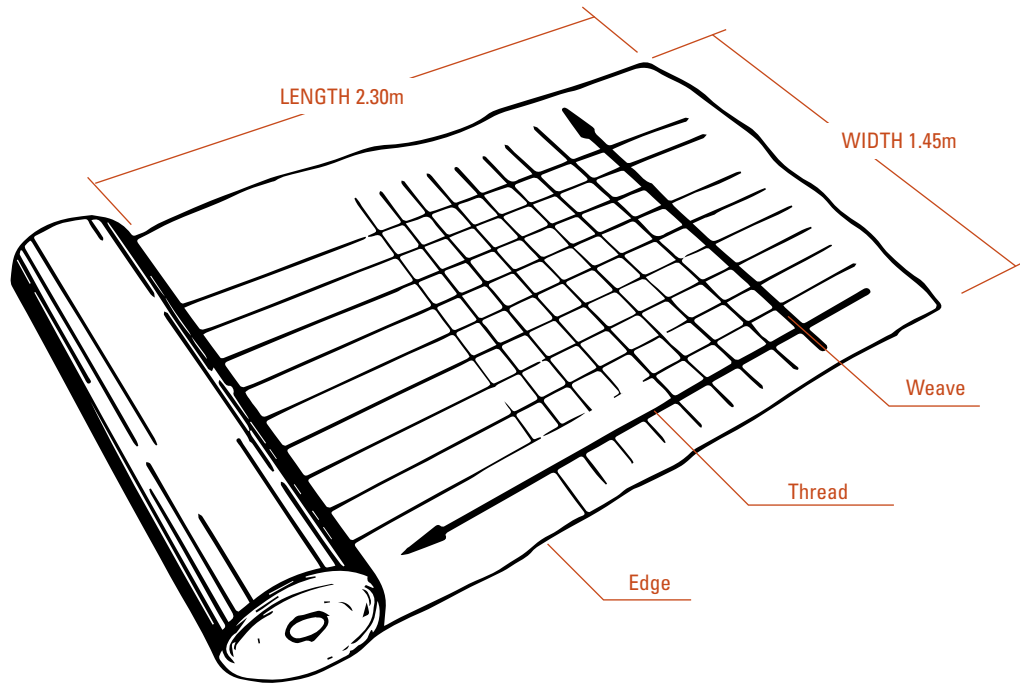


HELIA MOSQUI ZIP

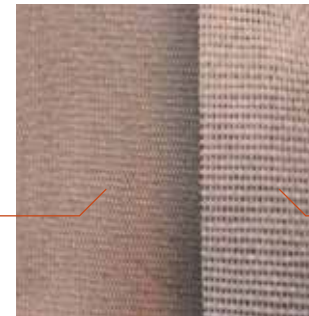
Maximum size: **4 x 2.4m**
(including welding)



PURE[®] FABRIC ORIENTATION

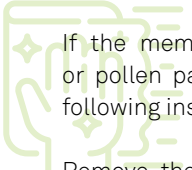


*Oriented dark side of tissue
inside housing*



*Clear face of the tissue oriented
abroad housing*

MAINTENANCE TIPS AND PRECAUTIONS



If the membrane is visibly saturated with smog, dust, or pollen particles, you should clean it according to the following instructions:

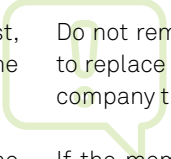
Remove the entire frame with the membrane from the window and immerse it in lukewarm water (approx. 40 °C) for about 20 minutes. Use a sufficiently large container (e.g., a bathtub). If such a container is not available, place the frame in a shower cubicle and rinse it thoroughly with a gentle stream of lukewarm water (approx. 40 °C) at a 45° angle.

Then apply a soapy detergent diluted with water (such as a dishwasher) to the outer surface of the membrane. Apply the detergent at a 45° angle using a sprayer. You can also use a soft cloth.

Wait 15 minutes before bathing the membrane again with a gentle stream of warm water (about 40°C) at a 45° angle. You can also use a garden hose to do this.

Allow the membrane and frame to dry completely before reinstalling them on the window.

If you perform this procedure on a HELIA Mosquizip, you must disconnect all electrical connections and be careful not to get the electrical components wet. A similar cleaning procedure should be carried out without dismantling the system. We recommend that this work is carried out by an authorized PERSAX installer.



Do not remove the membrane from the frame. If you need to replace your old membrane with a new one, contact the company that installed it.

If the membrane is punctured/broken, do not attempt to repair it with normal glue or tape and contact the company that installed it.

Do not smoke near the membrane. This could damage the membrane.

Do not iron the membrane.

Do not use a brush or cleaning sponge to clean the membrane, as this could irreversibly damage the nanofiber filter.

Avoid any contact with harsh chemicals such as petrol, bleach or organic solvents or thinners.

Keep the membrane out of reach of animals.

- For example, cat claws can severely damage the membrane.

Please note that the nanofiber membrane only protects your home/office from dangerous particles and insects.

Attention: It does not prevent children from falling out of the window.



MEASURES FOR EXTREMELY HOT WEATHER CONDITIONS

The nanofiber membrane creates a mechanical barrier: each square centimeter contains millions of tiny pores that prevent dangerous particles from entering your home/office.

However, the oxygen molecule is so small that it can pass through these pores. This is how you can ventilate your home/office and keep it safe at the same time.

However, each filter decreases the amount of air that passes through it, which means that, especially in the summer, you cannot expect a lot of airflow in your home or office.

On the hottest days of the year, we recommend placing the membrane over two windows on opposite sides of the interior (they do not have to be in the same room) to promote airflow and create a cross-breeze. You can also increase the air flow by turning on a fan or air conditioner.



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