LIFE'S WORTH IT

technical data sheet

RESPILON window membrane 5.0

The **RESPILON® window membrane** is for installation into windows and ventilation systems, and its primary purpose is to form a barrier against pollen, dust and air pollution. It is also able to stop the spread of mildew and bacterial spores, while being at the same time very permeable for air, gases and water vapors. Particles are caught mechanically. The membrane does not contain any chemical substances.

RESPILON® window membrane's 5.0 benefits:

- filtering fine dust and ultrafine dust
- catches UV
- catches pollen
- protects against insects
- excellent permeability
- no chemicals
- stops rain
- washable

Technical data for RESPILON® window membrane 5.0 Product number: RWM			
Description Physical Property	**Value**	**Unit**	**Test Method/Institution/Instrument**
Basic Weight	170±5	g/m2	ISO 536
Thickness	0.48±0.05	mm	ISO 9073 2
Weight Arrestance[1)]	89,1	%	ASHRAE STANDARD 52,1, SYNTETIC DUST WEIGHT ARRESTANCE
Bursting Strenght	487,0	N	KS K 0350 : 2011
Air Permeability Pressure drop : 125 Pa	329,6	$cm^3/cm^2/s$	JIS L 1096 : 2010, 8,26 METHOD A
Transmittance of visible radiation[2)]	40,4	%	UV-Vis NIR Spectrophotometer (PerkinElmer_Lambda 1050)

[1)] Test condition: test air flow: 1.0 m/s, Final resistance: 76 mmAq

[2)] Wavelength range 380~780 nm, wavelength interval: 10 nm

Composition of RWM 5.0		
	Percentage	**Cas No.**
PET - Poly ethylene terephthalate; fiber	35 g/ m^2 (20.6%)	25038.59-9
PVDF - Poly vinylidene fluoride	2 g/ m^2 (1.2%)	24937-79-9
PVC - Poly vinyl chloride	80 g/ m^2 (47.0%)	9002-86-2
Fiber Glass Continuous Filament	53 g/m^2 (31.2%)	65997-17-3

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Filtration Efficiency		
Testing method: WM-FE-01-2016		
Size of particles	**Value**	**Unit**
> 0,75 µm	54,9	%
> 1 µm	69,4	%
>2,5 µm	92,5	%
>3,5 µm	97,9	%
>5µm	99,5	%
> 7,5 µm	100	%

Ultra violet blocking[1,2,3)]		
Testing method: AATCC 183 : 2014		
Type	**Value**	**Unit**
UV-R	67,7	%
UV-A	67,0	%
UV-B	69,3	%

[1)] Wavelength range: UV-R 280~400 nm
UV-A 315~400 nm
UV-B 280~315 nm

[2)] Measuring instrument: UV-VIS.NIR Spectrophometer

[3)] The UVR transmittance was measured in dry condition.

QUV testing approved 200h, maximum thermal resistance is up to 150°C.

The indications are average results. They are subject to usual variation in production. These indications are given as per our knowledge for information about our products. These indications cannot be used as a fixed promise.

To keep the best filtration use the grey side as the outside one. Grey side faces to particles you want to stop.

The unique filtering ability of the membrane is provided by a nanofiber layer locked inside the membrane. Technically the **RESPILON®** window membrane is a three-layer laminate containing a breathable mesh and a nanofiber layer. Fabric components used in the membrane are stabilized against UV radiation. The compactness is ensured by material lamination.

RESPILON® window membrane is suitable for use in the households of allergic and asthmatic people, as well as those of people with cardiovascular disorders or pulmonary disease who live in areas or regions with high levels of air pollution.

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