FreciousComfort Indoor Air Filtration

More Comfort – Better Health

Leadership in Filtration

MANN+HUMMEL

The challenge
Allergies in figures

28 % of adults in Europe suffer from allergies (Robert Koch Institute, 2017)

>20 % of children suffered from an allergy in 2013 (swr.de, 2013)

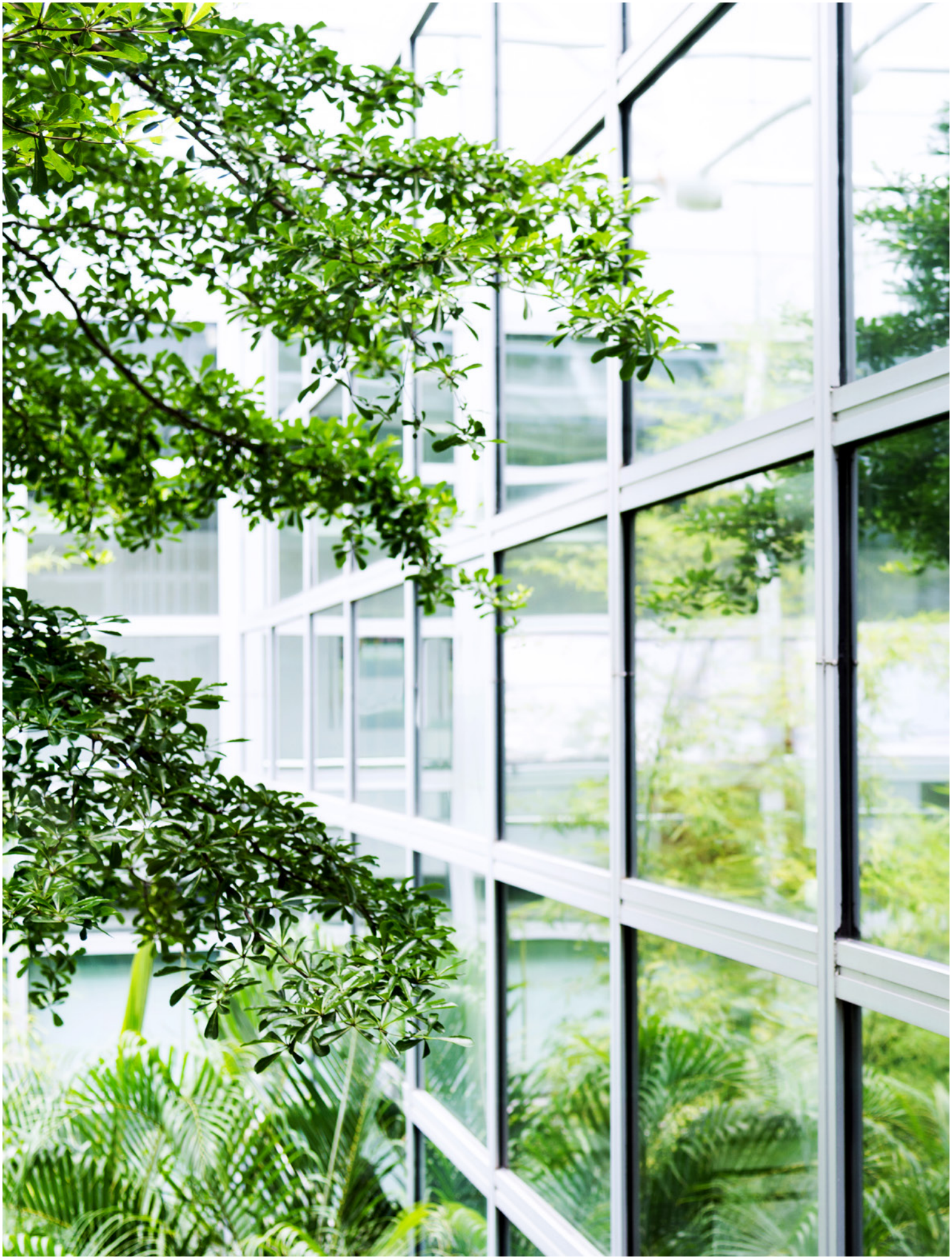
86 % of allergy sufferers are sensitive to pollen and

14 % are sensitive to mold

50 % of Europeans will suffer from allergies in 2040 (Helmholtz Centre Munich, 2014)

Overview of advantages

	FreciousComfort	FreciousComfort Carboactiv
Inactivates free allergens	✓	✓
Prevents the passage of bacteria and molds to the clean side of the filter	✓	✓
Removes odors and captures harmful gases, such as ozone, nitrogen oxides and sulphur dioxide		✓
Improved human well-being: lower disease rates, higher productivity	✓	✓
ISO 16890 ePM1 50 – 60 %	✓	✓
Certified quality (bifa, Hohenstein Institute)	✓	✓



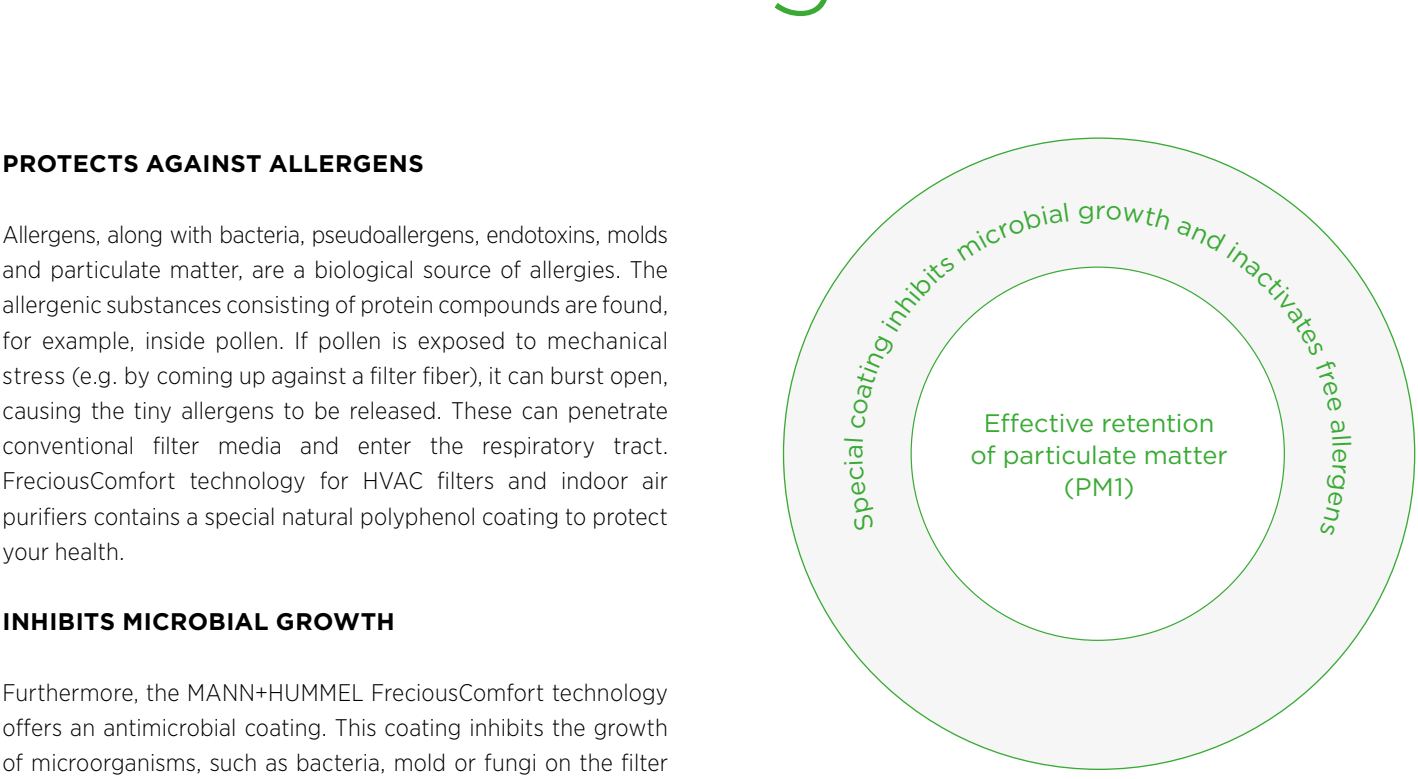
FreciousComfort Controls allergens and microbial growth

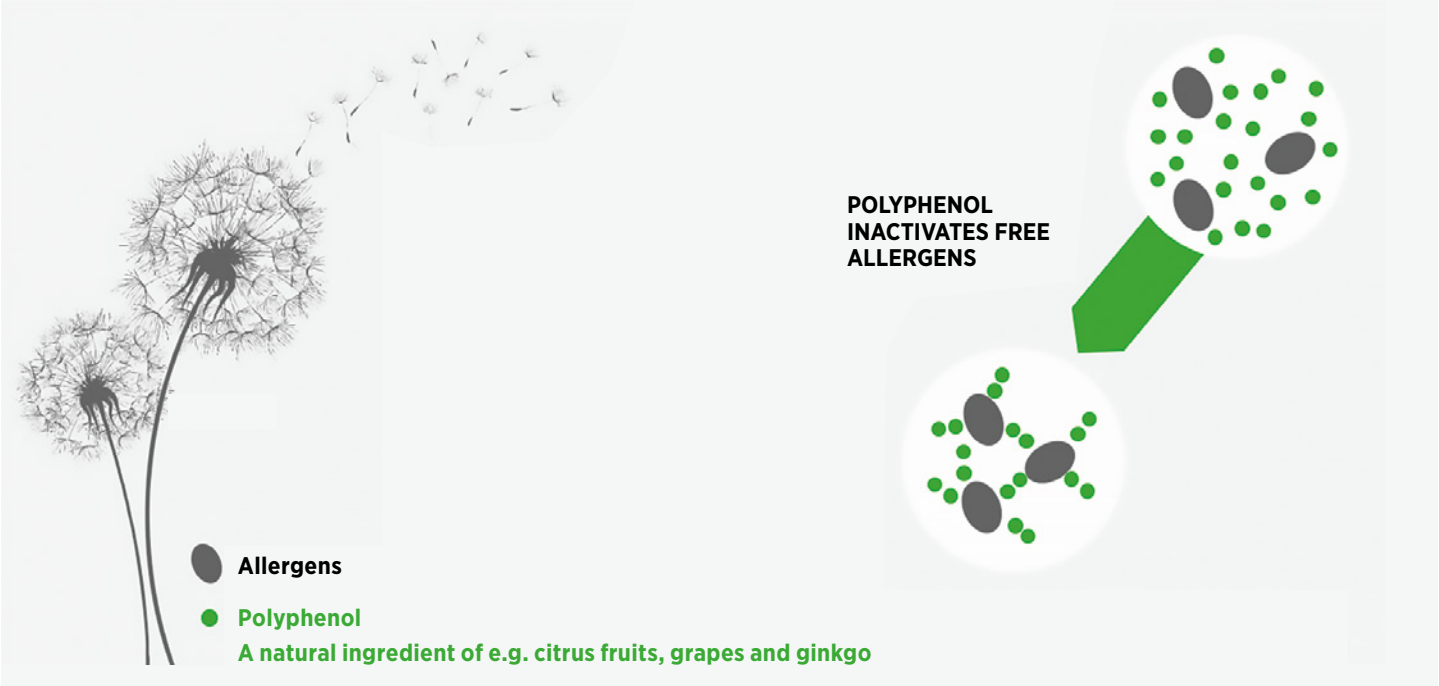
PROTECTS AGAINST ALLERGENS

Allergens, along with bacteria, pseudoallergens, endotoxins, molds and particulate matter, are a biological source of allergies. The allergenic substances consisting of protein compounds are found, for example, inside pollen. If pollen is exposed to mechanical stress (e.g. by coming up against a filter fiber), it can burst open, causing the tiny allergens to be released. These can penetrate conventional filter media and enter the respiratory tract. FreciousComfort technology for HVAC filters and indoor air purifiers contains a special natural polyphenol coating to protect your health.

INHIBITS MICROBIAL GROWTH

Furthermore, the MANN+HUMMEL FreciousComfort technology offers an antimicrobial coating. This coating inhibits the growth of microorganisms, such as bacteria, mold or fungi on the filter media´s surface. Thus, it reduces unpleasant odors caused by these microorganisms, providing another positive effect on your well-being and comfort.





FreciousComfort
Filter structure and media

1

PARTICULATE MATTER FILTRATION

The powerful filter medium catches even the smallest particles, such as particulate matter (ISO 16890 ePM1 50 – 60 %).

2

ANTI-ALLERGENIC COATING

Natural polyphenol inactivates free allergens.

2

ANTI-MICROBIAL COATING

Prevents bacteria and molds from penetrating to the clean side.

3

ACTIVE CARBON (OPTIONAL)

The activated carbon layer removes unpleasant odors and harmful gases such as ozone, sulphur dioxide and nitrogen oxides.

Airpocket FreciousComfort

Product Range

Applications

Filter Class

ePM1

KEY FACTS

- Anti-allergenic coating inactivates free allergens
- Anti-microbial treatment prevents bacteria and molds on the clean air side
- Particle filtration via synthetic, melt blown filter media
- High dust holding capcity

DESIGN

Pocket filters built with metal or plastic frame. Single pocket made from multilayer, poly-propylene meltblown media with integrated prefilter layer and conical spacer seams for an optimal V shape.

APPLICATION

Improvement of indoor air quality and reduction of allergic reactions in public buildings or other places where people gather.

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

Airpocket FreciousComfort

PERFORMACE DATA

Article No.	Filter Class	Dimensions	Pockets	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
	ISO 16890	mm		m³/h	Pa	kWh/year	Eurovent 2019
800370053733	ePM1 60 %	592x592x635	8	3,400	105	1,699	D
800370053734	ePM1 60 %	490x592x635	6	2,800	105		
800370051994	ePM1 60 %	287x592x635	4	1,700	105		
800370053735	ePM1 60 %	287x287x635	4	850	105		
800370053737	ePM1 60 %	592x490x635	8	2,800	105		
800370053736	ePM1 60 %	592x287x635	8	1,700	105		

SPECIFICATIONS

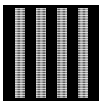
Recommended air flow	Flow rate +-15 %	**Recommended final pressure drop**	250 Pa (Max 450 Pa)
Heat resistance	Max. 70°C	**Moisture resistance**	100 % rel. Humidty
Regenerable	No	**Incinerable**	Yes (excluding metal frame versions)

OPTIONS

Frame	Plastic or galvanized steel
Gasket	EPDM flat gasket
Header depth	25 mm or 20 mm

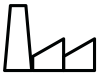
Carboactiv Cube FreciousComfort

Product Range



Features

Applications



Filter Class

ePM1

KEY FACTS

- Anti-allergenic coating inactivates free allergens
- Anti-Microbial treatment prevents bacteria and molds on clean air side
- Particle filtration and gas adsorption in one layer
- Removes odors and captures harmful gases
- Certified quality (bifa, Hohenstein Institute)

DESIGN

Filter elements are sealed into a 4V plastic frame with polyurethane for an extremely robust construction. The pleat packs are built up of 3 layers featuring particulate matter filtration, activated carbon and the FreciousComfort with the biofunctional layer. The frame features an integrated handle for ease of transportation.

APPLICATION

Improvement of indoor air quality and reduction of allergic reactions in public buildings or other places where people gather.

EUROVENT CERTIFIED PERFORMANCE
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Carboactiv Cube FreciousComfort

PERFORMACE DATA

Article No.	Filter Class	Dimensions	Flow Rate	Pressure Drop	Energy Consumption	Energy Class
	ISO 16890	mm	m^3/h	Pa	kWh/year	Eurovent 2019
800653053730	ePM1 50 %	592x592x300	3,400	140	>2,500	E
800653053732	ePM1 50 %	592x287x300	1700	140		

SPECIFICATIONS

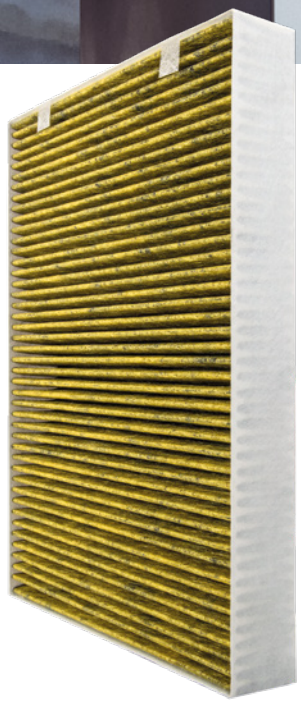
Heat resistance	< 30°C (Peak 50°C)	**Moisture resistance**	< 60 % (Max <90 %)
Regenerable	No	**Incinerable**	Yes*
Adsorption capacity	750 g		

* Please ensure accordance with relevant disposal directives

OPTIONS

Gasket	Continuous polyurethane 1 or 2 sides

FreciousComfort for Home Appliances



FRECIOUSCOMFORT IN AIR PURIFIERS

- FreciousComfort provides antiallergenic and anti-microbial defense
- Realizable in activated carbon combinations
- Captures the most common and harmful indoor pollutants including PM2.5, VOCs, formaldehyde and nitrogen oxides

MANN+HUMMEL OFFERS

- Customized filtration solutions from the world leader in filtration
- In-house testing and validation
- Global operations
- Genuinely innovative technology
- A range of system competences such as acoustic simulation and technical plastic components

MANN+HUMMEL

airfiltration.mann-hummel.com