

Notice

- Specifications are subject to change for product improvement without prior notice. Because flammable materials are included in the products, please pay attention to safety when you are bound by regulatory restrictions.
- Please do not use the products in places where condensation occurs or water splashes. Please contact our personnel in charge for design and use.
- Reproduction of all or part of the data of this document without permission is prohibited.



Tokyo Sales Division

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DESIGN FOR CLEAN AIR



Chemical Filter Catalog

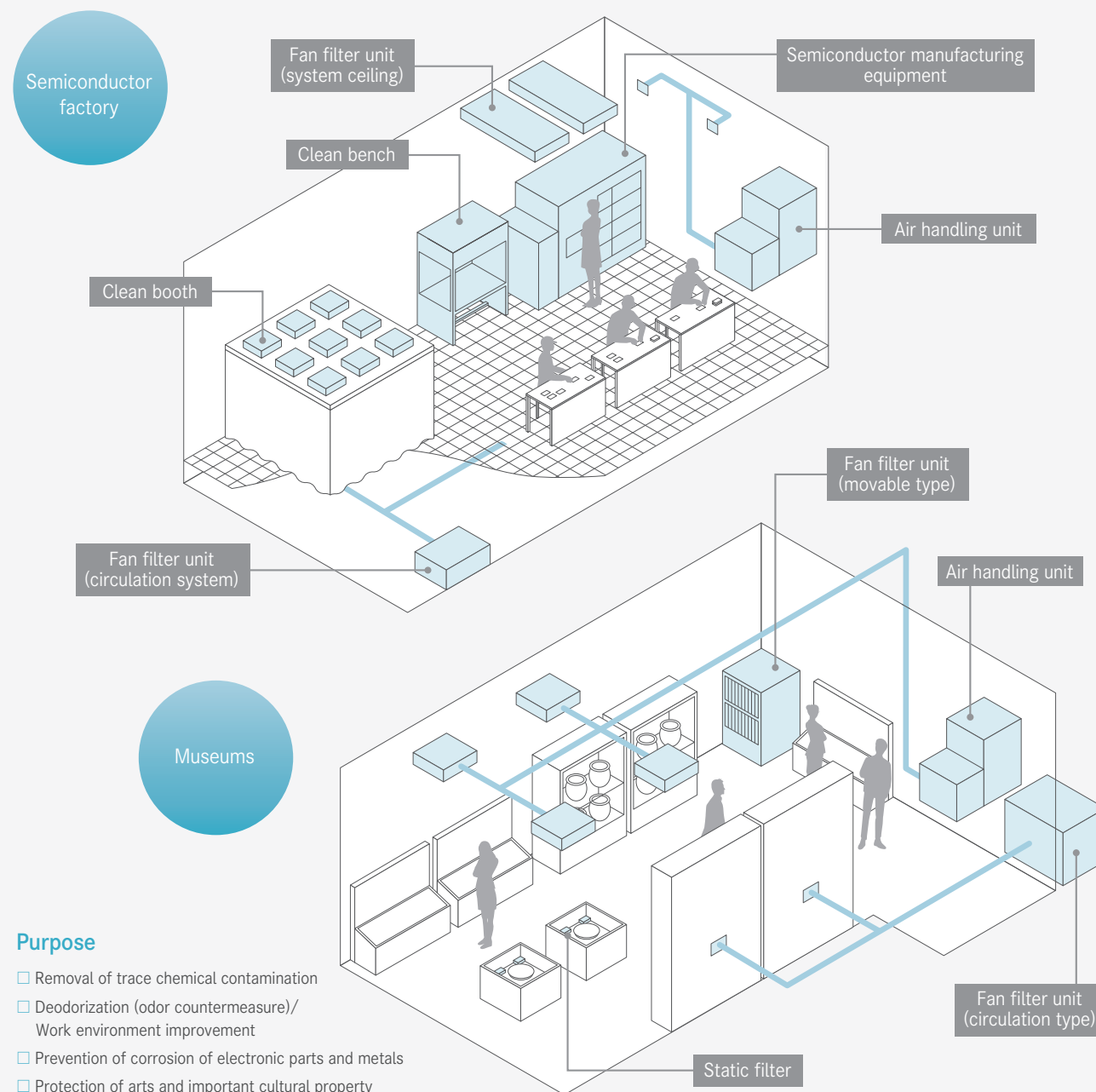




For a Custom-Made, Clean Space.

As a pioneer of chemical filters with over 40 years of experience, Puretec will propose a custom-made clean space to meet your needs.

We provide total support from air quality analysis, design, and construction to maintenance.



TECHNICAL ICON



Tray type



Filter type



Air conditioner built-in type



Duct connection type



Roll-type



Sponge-type



Sheet-package Type



For Ceiling Cassette type
Package Air Conditioner



Pleated Structure



For FFU (Fan Filter Unit)



For static use



Also for medium performance
use For medium performance
both use



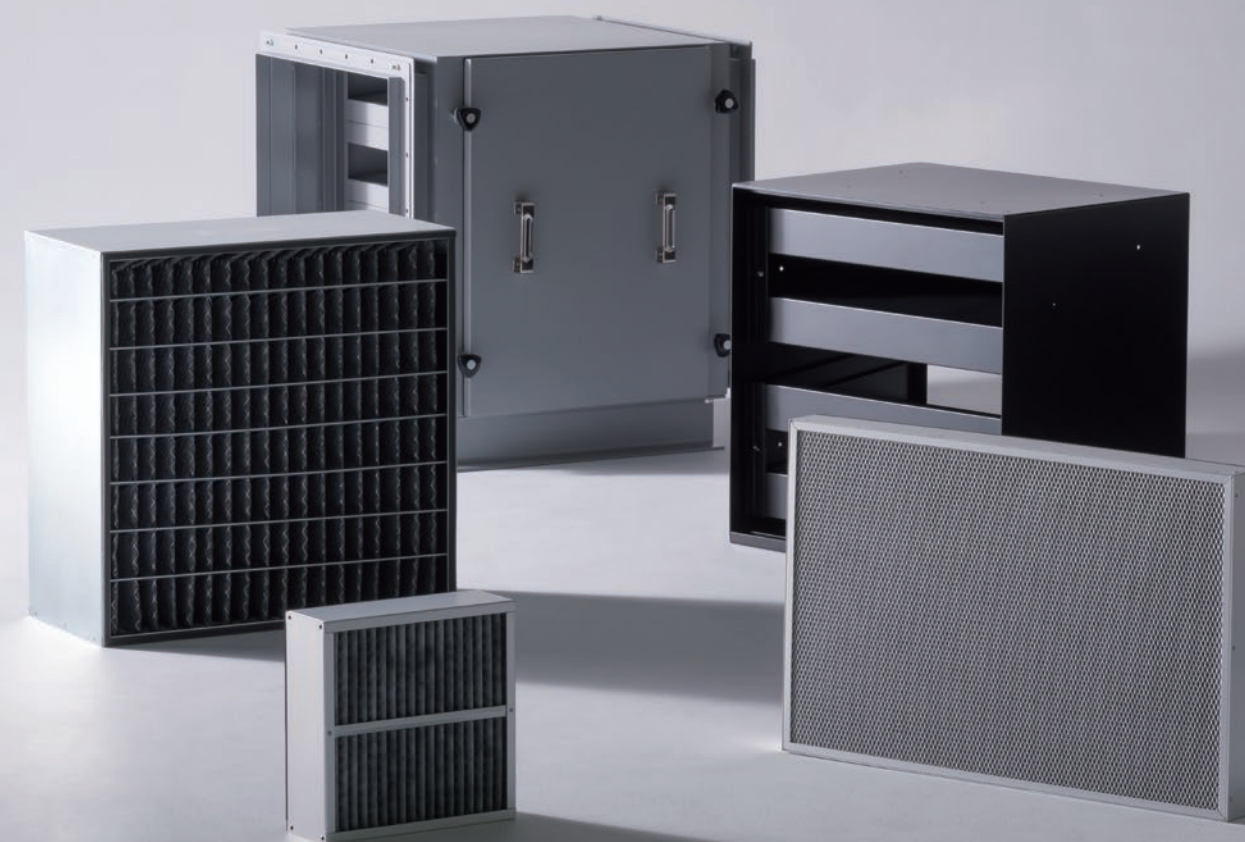
For equipment



Honeycomb structure



Cut OK



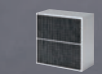
CHEMICAL FILTER LINE UP



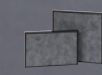
PureLite®
Chemical adsorbent P03



PureLite® Filter
PF/PY series P05



PureGate®
Pleated Structure High Performance Chemical Filter ... P09



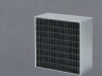
PureMold
Low Dust Generating Molded Chemical Filter P11



PureFoam
Nonwoven Fabric Chemical Filter P13



PureACT
Honeycomb Structure Chemical Filter P15



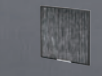
CleanSorb® II
Activated Carbon Fiber Chemical Filter P17



TERZETTO®
Sponge-Type Chemical Filter P19



PurePUT®
Sheet-package Gas Adsorbent P21



Tolater®
Ceiling Cassette Type VOC Removal Filter P22

PureLite®

Chemical adsorbent

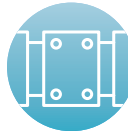
Possible to make the optimum choice
with our abundant lineup according to your intended purpose.



Tray type



Air conditioner
built-in type



Duct connection
type



Features

- Boasts of an overwhelming adsorption power compared with the conventional air-cleaning agent that is based on physical adsorption.
- The four functions, namely redox reaction, neutralization reaction, catalytic action, and physical adsorption produce a synergistic effect.
- The optimum adsorbent can be selected and combination can be made according to the type and concentration of the target gas, air volume and installation space.



White
cylindrical shape



Red purple
cylindrical shape



Black
cylindrical shape



Black
fractured shape



Types of target substances and media

Grade	Appearance	Size	Bulk density	Main target gas	Packing unit
A2	White cylindrical shape	$\phi 3 \times (10 \pm 5)$	0.70 - 0.80	Hydrochloric acid / Sulfuric acid / Nitric acid / Hydrofluoric acid	15kg/case
A3H	Black fractured shape	4 × 8 mesh	0.40 - 0.50	Hydrogen sulfide/Acetic acid/Organic acid/Sulfuric acid	12kg/case
E2	Red purple cylindrical shape	$\phi 3 \times (10 \pm 5)$	0.45 - 0.55	Hydrogen sulfide/Sulfurous acid gas Mercaptan/Ethylene Other complex odors	10kg/case
E3	Red purple cylindrical shape	$\phi 3 \times (10 \pm 5)$	0.60 - 0.70		15kg/case
E5	Black fractured shape	4 × 8 mesh	0.48 - 0.60		12kg/case
E5H	Black fractured shape	4 × 8 mesh	0.38 - 0.48		12kg/case
G	Black fractured shape	4 × 8 mesh	0.46 - 0.56	Formaldehyde	15kg/case
GAR	Black fractured shape	4 × 8 mesh	0.45 - 0.55	Formaldehyde/Acetaldehyde	15kg/case
F	White cylindrical shape	$\phi 3 \times (10 \pm 5)$	0.90 - 1.00	Alkaline gas (Ammonia/Amines)	15kg/case
F4	Black fractured shape	4 × 8 mesh	0.67 - 0.82		15kg/case
F4H	Black fractured shape	4 × 8 mesh	0.53 - 0.63		15kg/case
K	Black fractured shape	4 × 8 mesh	0.44 - 0.54	Organic solvent/Ozone	15kg/bag
KH	Black fractured shape	4 × 8 mesh	0.32 - 0.42	Organic acid/Nitrogen dioxide	12kg/bag
O2	Black cylindrical shape	$\phi 3 \times (10 \pm 5)$	0.45 - 0.55	Ozone/Chlorine/Nitrogen dioxide	10kg/case

※For terms of use, etc., please refer to the "Request" on the back cover.



Guide of SV value

Intended purpose	SV value for reference
Clean room related to semiconductors (outside air / circulation process)	3,000 - 20,000
Other clean rooms (outside air / circulation process)	5,000 - 30,000
Museum / Repository (acid / alkaline countermeasures)	20,000 - 60,000
Computer protection at factories etc. (air pollution)	10,000 - 60,000
Offices / Residential space of schools etc. (air pollution)	10,000 - 60,000
Odor removal at restaurant / kitchen and hospital, etc.	5,000 - 30,000
Removal of malodorous substances in laboratory and animal breeding houses etc.	5,000 - 20,000
Removal of malodorous substances in manufacturing plants	500 - 20,000
Removal of malodorous substances in sewage treatment plants	1,000 - 10,000

PureLite® Filter

PFseries Air conditioner built-in type

PureLite-dedicated casing
of air conditioner built-in type.



Tray type



Air conditioner
built-in type



Example of SS products

(Blue characters are reference values for design, not standard values)

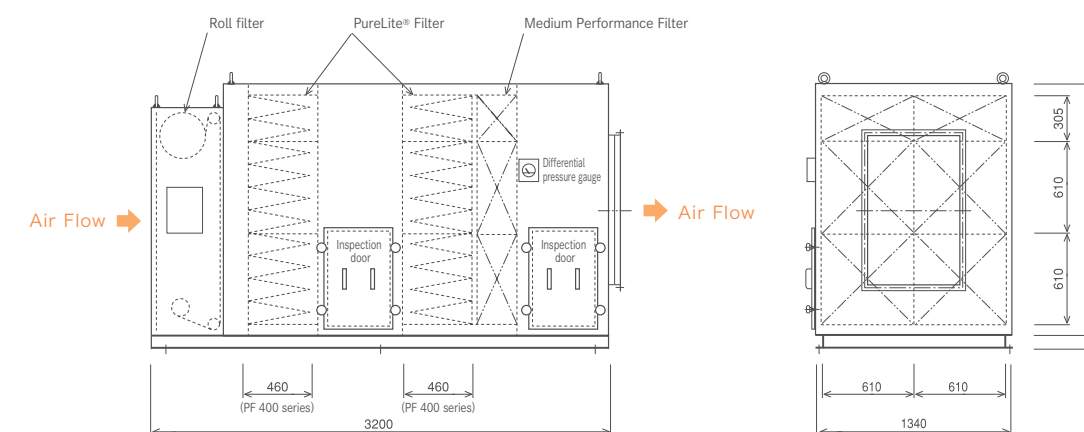
Description of items in set			Body only (casing)		Incorporated part filter		Approximate total weight at operating after filling		
Model	External dimensions (W×H×D mm)	Guide of filling capacity	Model	Approximate weight	Model	Quantity (Weight before filling)			
PF400FN	610×610×460	57L	F-400FN	21kg	P400	8 pieces (22kg)	F:100kg	E3:82kg	K:73kg
PF400HN	610×305×460	28.5L	F-400HN	14kg		4 pieces (11kg)	F:53kg	E3:44kg	K:40kg
PF400TN	305×610×460	28L	F-400TN	16kg	T400	8 pieces (12kg)	F:56kg	E3:47kg	K:43kg
PF230FN	610×610×290	34L	F-230FN	15kg	P230	8 pieces (16kg)	F:65kg	E3:54kg	K:49kg
PF230HN	610×305×290	17L	F-230HN	11kg		4 pieces (8kg)	F:36kg	E3:30kg	K:28kg
PF230TN	305×610×290	16.5L	F-230TN	13kg	T230	8 pieces (9kg)	F:38kg	E3:33kg	K:30kg
PF590FN	610×610×660	115L	F-590FN	29kg	P590	8 pieces (36kg)	F:180kg	E3:145kg	K:127kg
PF590HN	610×305×660	57.5L	F-590HN	20kg		4 pieces (18kg)	F:95kg	E3:78kg	K:69kg
PF590TN	305×610×660	56.5L	F-590TN	24kg	T590	8 pieces (20kg)	F:100kg	E3:83kg	K:74kg

Other low pressure-loss types are also available. Please contact us for stocks, delivery dates, and models not listed in the table.

※For terms of use, etc., please refer to the "Request" on the back cover.

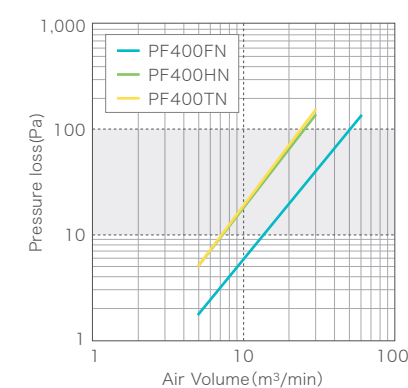


Usage example of PF series

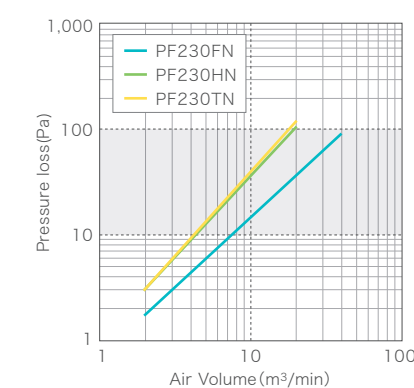


Pressure loss

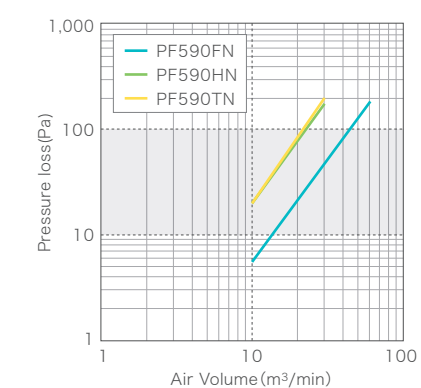
PF400 series



PF230 series



PF590 series



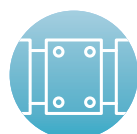
PureLite® Filter

PYseries Duct connection type

PureLite-dedicated casing
of duct connection type



Tray type



Duct connection
type



Example of SS products

(Blue characters are reference values for design, not standard values)

Description of items in set			Body only (casing)		Incorporated part filter		Approximate total weight at operating after filling		
Model	External dimensions (W×H×D mm)	Guide of filling capacity	Model	Approximate weight	Model	Quantity (Weight before filling)			
PY400F	605×650×600	57L	Y-400F	34kg	P400	8 pieces (22kg)	F:113kg	E3:95kg	K:86kg
PY400H	605×350×600	28.5L	Y-400H	26kg		4 pieces (11kg)	F:65kg	E3:56kg	K:52kg
PY400T	300×650×600	28L	Y-400T	28kg	T400	8 pieces (12kg)	F:68kg	E3:59kg	K:55kg
PY230F	605×650×430	34L	Y-230F	29kg	P230	8 pieces (16kg)	F:79kg	E3:68kg	K:63kg
PY230H	605×350×430	17L	Y-230H	22kg		4 pieces (8kg)	F:47kg	E3:41kg	K:39kg
PY230T	300×650×430	16.5L	Y-230T	24kg	T230	8 pieces (9kg)	F:49kg	E3:44kg	K:41kg
PY590F	605×650×790	115L	Y-590F	50kg	P590	8 pieces (36kg)	F:201kg	E3:166kg	K:148kg
PY590H	605×350×790	57.5L	Y-590H	38kg		4 pieces (18kg)	F:113kg	E3:96kg	K:87kg
PY590T	300×650×790	56.5L	Y-590T	42kg	T590	8 pieces (20kg)	F:118kg	E3:101kg	K:92kg

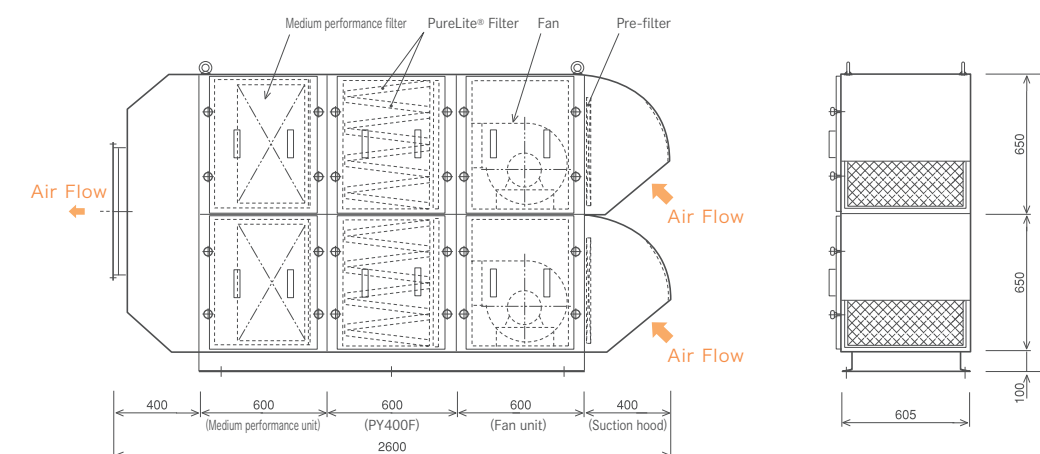
Other options include medium performance filter unit and companion flange / base / door hinge for PY series.

Please contact us for stocks, delivery dates, and models not listed in the table.

※For terms of use, etc., please refer to the "Request" on the back cover.

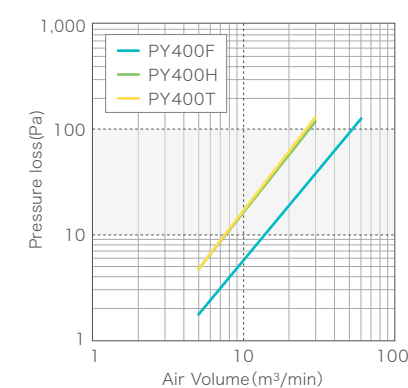


Usage example of PY series

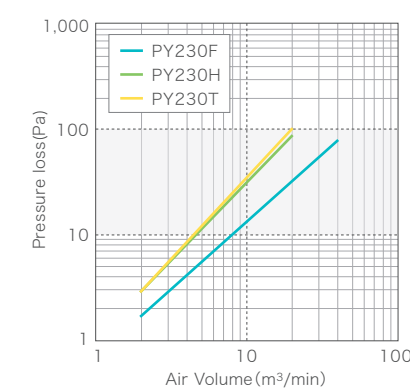


Pressure loss

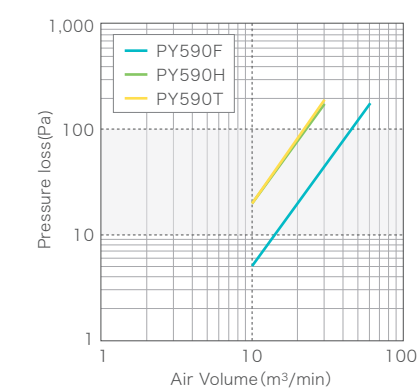
PY400 series



PY230 series



PY590 series



PureGate®

High performance chemical filter with pleated structure

For multiple types of gases.
Furthermore, realize longer lifetime and lower pressure loss.



Filter type



Also for medium performance use



Pleated structure



For FFU



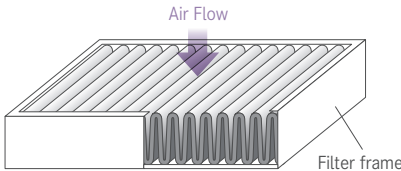
For equipment



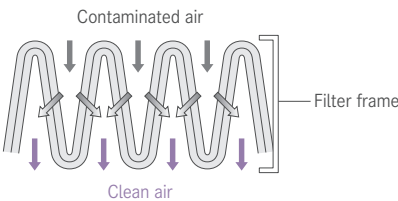
Features

- The chemical filter medium is sandwiched by nonwoven fabric to form a sheet that is efficiently woven to form a pleated structure to realize a long service life and low pressure loss. It contributes to the reduction of the running cost of the equipment.
- Since up to three layers can be stacked, one filter can be used for multiple types of gases.
- The size can be produced according to your request. A wide range of applications are possible by selecting the sheet and thickness.

Pleated sheet



Cross-sectional view of the Filter



Types of target substances and sheets

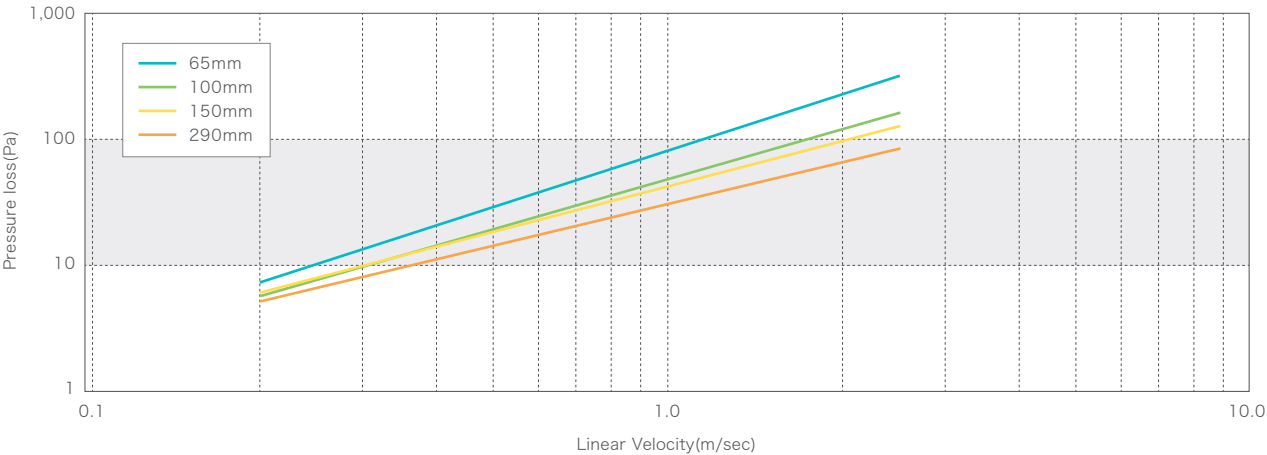
Target gas	Main target gas	Model	Filter media	Type
Organic gas	Organic gas, such as toluene, acetone, siloxane, And phthalate ester	JK	Activated carbon	Standard
		YK		High efficiency / long service life
Acid gas	Acid gas, such as hydrochloric acid, nitric acid, sulfuric acid, and acetic acid	JA	Activated carbon	Standard
		YA		High efficiency / long service life
		EH	Ion-exchange resin	High efficiency / long service life
Alkaline gas	Alkaline gas, such as ammonia, NMP, and amine	JF	Activated carbon	Standard
		YF		High efficiency / long service life
		EN	Ion-exchange resin	High efficiency / long service life
Acid / alkaline gas	Acid / alkaline gas	EW	Ion-exchange resin	High efficiency / long service life
Aldehydes	Formaldehyde, acetaldehyde, etc.	JD	Activated carbon	Standard
Particle	Dust	B	Medium Performance Media	Removal of dust (particles)

※For terms of use, etc., please refer to the "Request" on the back cover.



Pressure loss

J type (standard thickness) 2-layer product Pressure loss



PureMold

Low Dust Generating Molded Chemical Filter

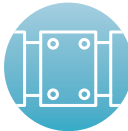
Realize high adsorption performance and low dust generation equivalent to high performance activated carbon



Tray type



Air conditioner built-in type



Duct connection type

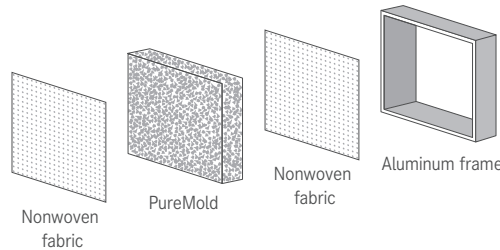


Features

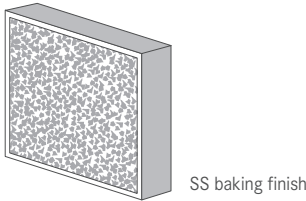
- Plate chemical filter (media) taking high performance activated carbon as the base material.
- Maintain high removal performance and adsorption capacity equivalent to high performance activated carbon by advanced molding technology. Also suppresses the amount of generated dust.
- Demonstrate high performance in the removal of alkaline gas, acid gas, sulfuric gas, and organic gas in the open air or circulating air of clean rooms.
- Since the media itself can be used as a filter, it is lighter than filling high performance activated carbon into a part filter (container)etc.

Construction example

Protect the upstream side and the downstream side of the media with a nonwoven fabric and fix it to an aluminum frame.



Can be used as part filter for PureLite Filter (PF series, PY series).



Types of target substances and media

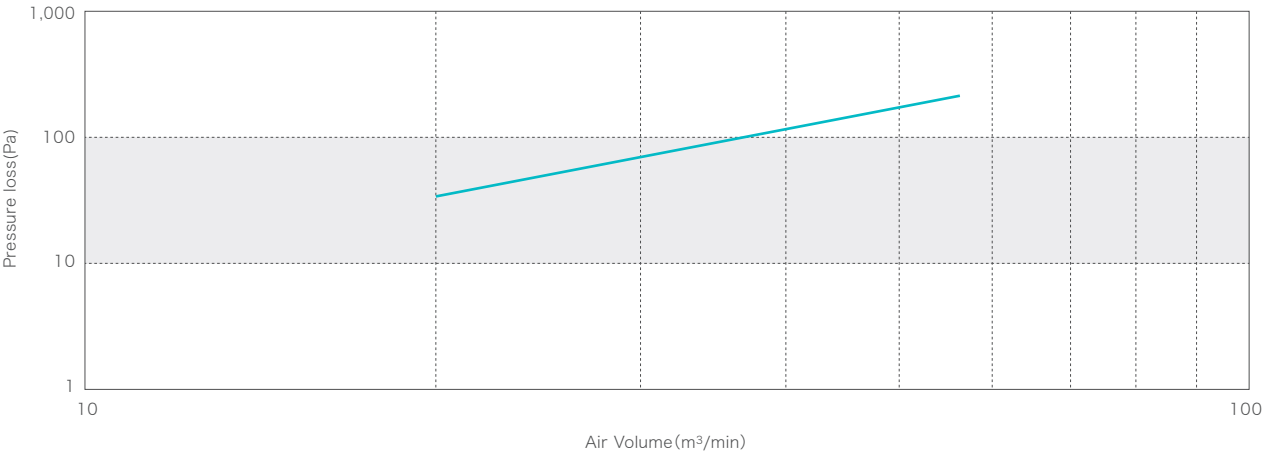
Name	Main target gases
PureMold MK	Organic gas, such as DOP and toluene
PureMold MA	Acid gas, such as hydrogen sulfide, nitric acid, hydrochloric acid and hydrofluoric acid
PureMold ME	Sulfuric gas, such as sulfur dioxide
PureMold MF	Alkaline gas, such as ammonia and amine

※For terms of use, etc., please refer to the "Request" on the back cover.



Pressure loss

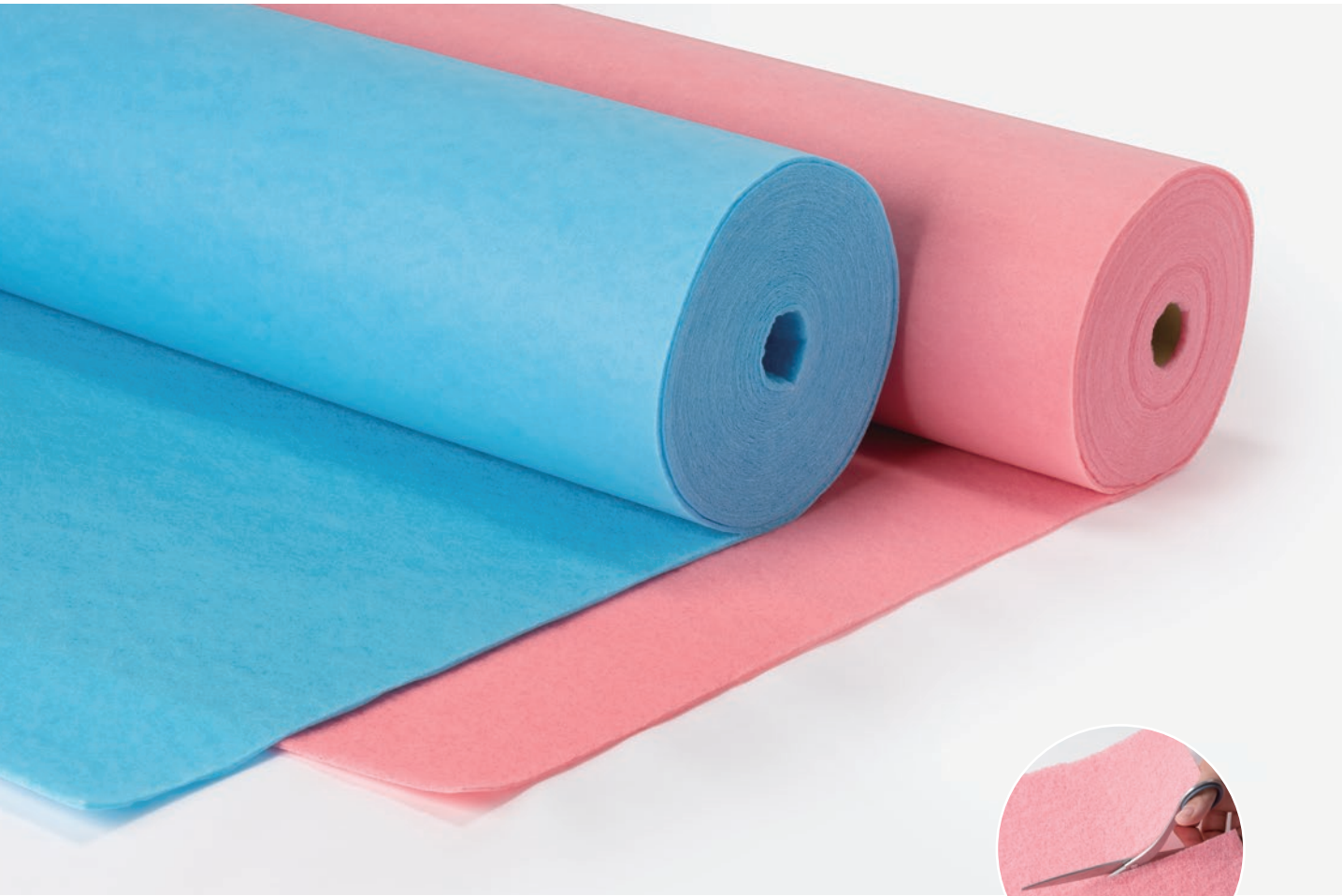
When mounted on the Chemical Filter Unit PF592FN made by PureTec



PureFoam

Nonwoven fabric chemical filter

Flexible and lightweight, applicable to any space, easy maintenance.



Roll-type

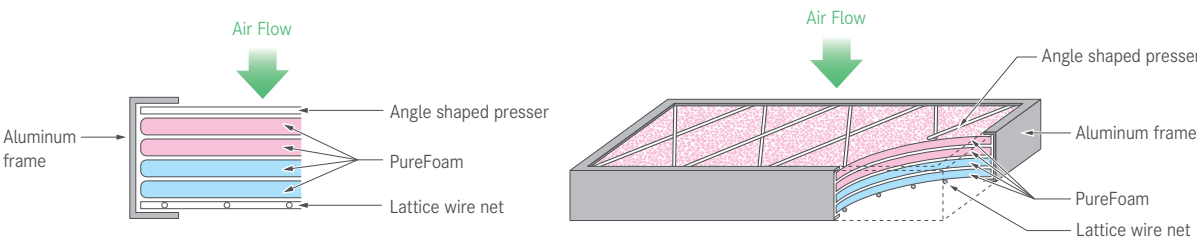


Cut OK



Features

- Excellent in air permeability, taking lightweight and flexible olefinic nonwoven fabric as the base material, easy to exchange filters and conduct maintenance.
Produce effect on dust collection, cheaper than conventional chemical filters.
- Exert high performance in the removal of alkaline gas and acid gas in the open air and in the circulating air of clean rooms.
Can judge the type of the media according to the color.
- Can be used in a narrow space since the thickness of one sheet is as thin as 7 mm. Can also be stacked conveniently according to usage conditions.
Also ideal for supplementary use in case of an urgent addition.



Types of target substances and sheets

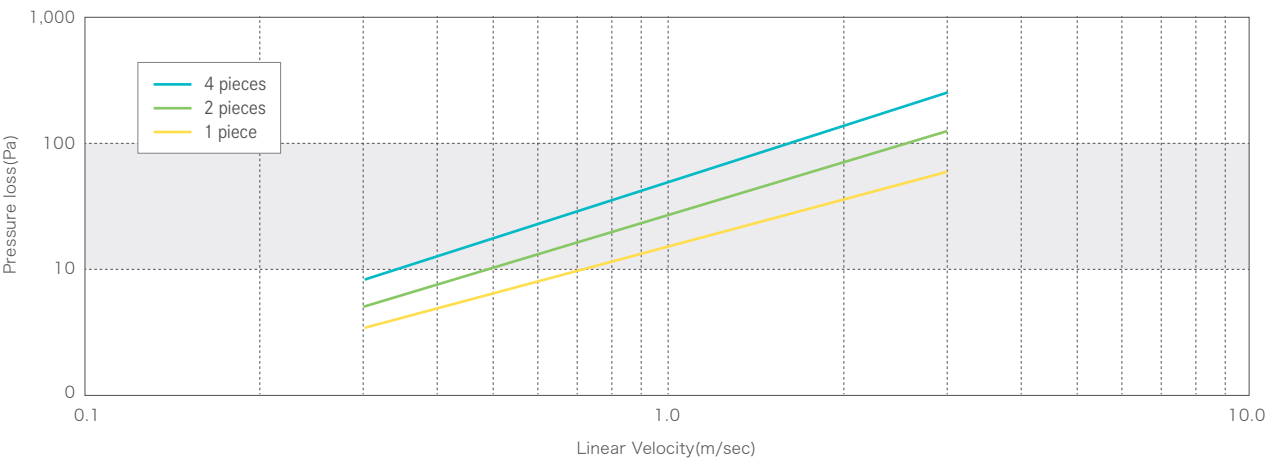
Name	Color	Thickness	Main target gases
PureFoam-H	Red	7mm	Acid gas, such as hydrochloric acid, nitric acid, and SO ₂
PureFoam-N	Blue	7mm	Alkaline gas, such as ammonia

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Pressure loss

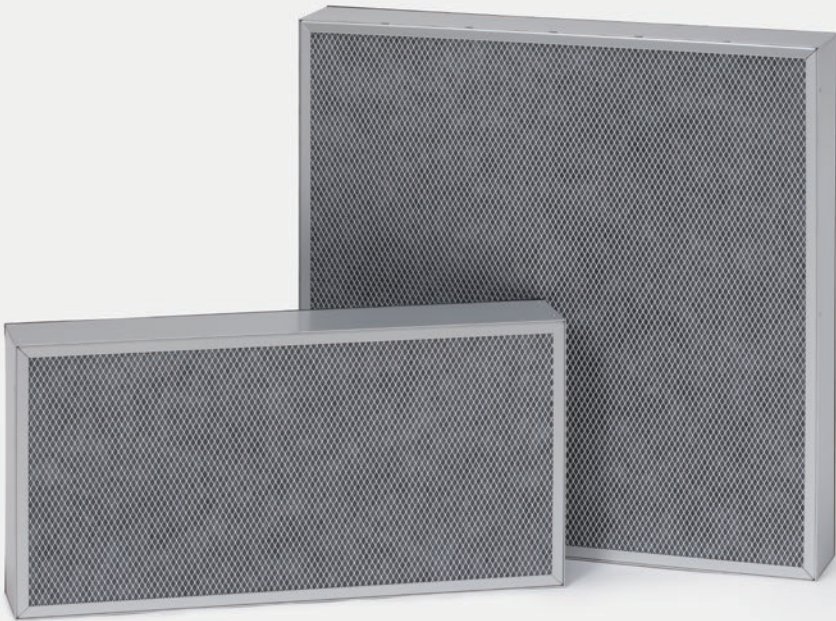
PureFoam-H,N



PureACT

Chemical filter with honeycomb structure

High performance powdered activated carbon efficiently adsorbs chemical contamination at the parts-per-billion level.



Filter type



Honeycomb structure



For FFU



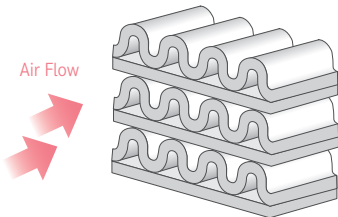
For equipment



Features

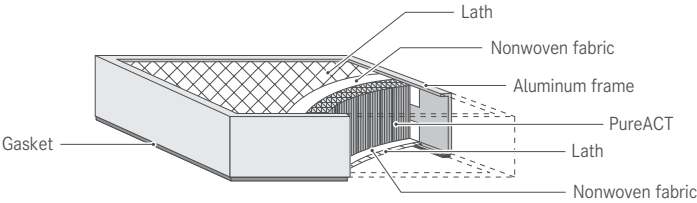
- A chemical filter that is made by forming a honeycomb structure with sheets, which take powdered activated carbon as the base material.
- Realizes longer service life in addition to high adsorption performance and low pressure loss.
- Efficiently adsorbs and removes the chemical contamination at the parts-per-billion level in the air by using high performance powdered activated carbon.

An enlarged view of the honeycomb



Structure of the filter

Both sides of the filter, which is fixed into an aluminum frame, are protected by nonwoven fabric and a lath net.



Types of target substances and media

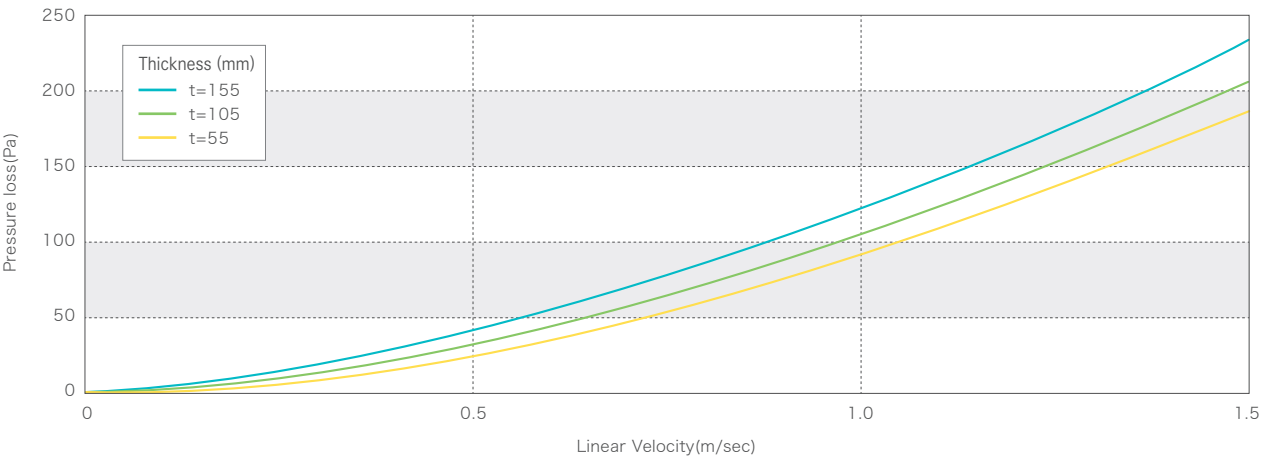
Name	Main target gases
PureACT-K	Organic gases, such as toluene, siloxane, and phthalate ester
PureACT-H	Acid gases, such as hydrochloric acid, nitric acid, and SO ₂ , as well as ozone and boron
PureACT-N	Alkaline gases, such as ammonia, organic amine, and NMP

※For terms of use, etc., please refer to the "Request" on the back cover.



Pressure loss

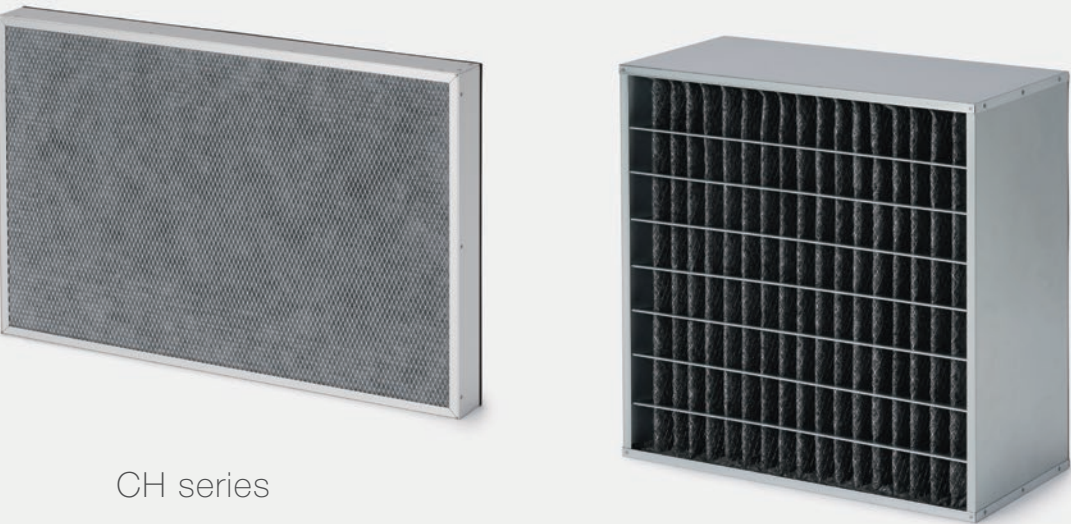
PureACT



CleanSorb® II


Activated carbon fiber chemical filter


Activation of high purity carbon fiber realizes
a high-performance physical adsorption capacity





CH series


CM series


- 

Filter type
- 

Also for medium performance use
- 

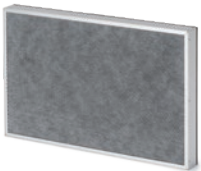
Pleated structure
- 

Honeycomb structure
- 

For FFU
- 

For equipment

Features of the series



CH

- [Structure] Honeycomb structure
- [Features] It has a pore structure peculiar to carbon fiber and has high performance in adsorbing contaminants in the air.
- [Applications] Management of clean room/Semiconductor manufacturing equipment



CM

- [Structure] Pleated structure
- [Features] Corresponds to large airflow with low-pressure loss, and it can be used in combination with air filter (medium performance).
- [Applications] Outside air treatment measures/Clean room circulation system/ Exhaust treatment measures

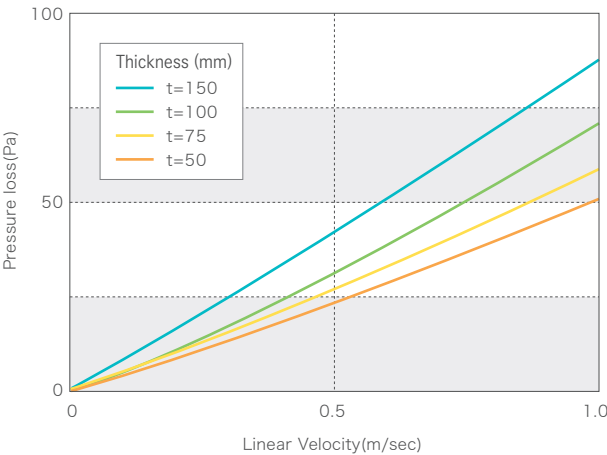
Types of target substances and media

Type of Media	Type of Filter		Target gas	Typical target gases
	CH	CM		
C	○	○	Organic gas	Acetone, toluene, organic solvent
H	○	○	Acid gas	Nitric acid, hydrochloric acid, hydrofluoric acid, acetic acid
S	○	○	Sulfuric gas	Sulfur oxide, hydrogen sulfide, mercaptan
N	○	○	Alkaline gas	Ammonia, amines, NMP
O	○	—	Oxidizing gas	Ozone · hydrogen peroxide
B	—	○	—	Particle (Medium Performance Filter Media)

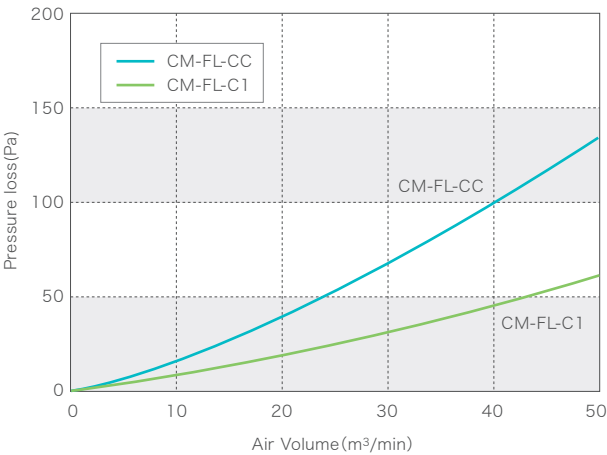
※For terms of use, etc., please refer to the "Request" on the back cover.

Pressure loss

CH



CM



TERZETTO®

Sponge-type chemical filter

Remove the gaseous pollutants in the air with high efficiency.



Sponge-type



For FFU



Features

- This is revolutionary chemical filter has polyurethane foam carry the activated carbon/ion exchange resin and removes the gaseous pollutants in the air with high efficiency.
- Realizes low-pressure loss because polyurethane foam can ensure excellent air permeability. It contacts efficiently with the activated carbon and demonstrates high adsorption performance.
Reduces dust generation by outgas-free. Corresponds to multiple types of gas by stacking multiple types of media.
- Being lighter than granular activated carbon of the same volume, it can be installed anyplace and maintenance is easy.



Types of target substances and media

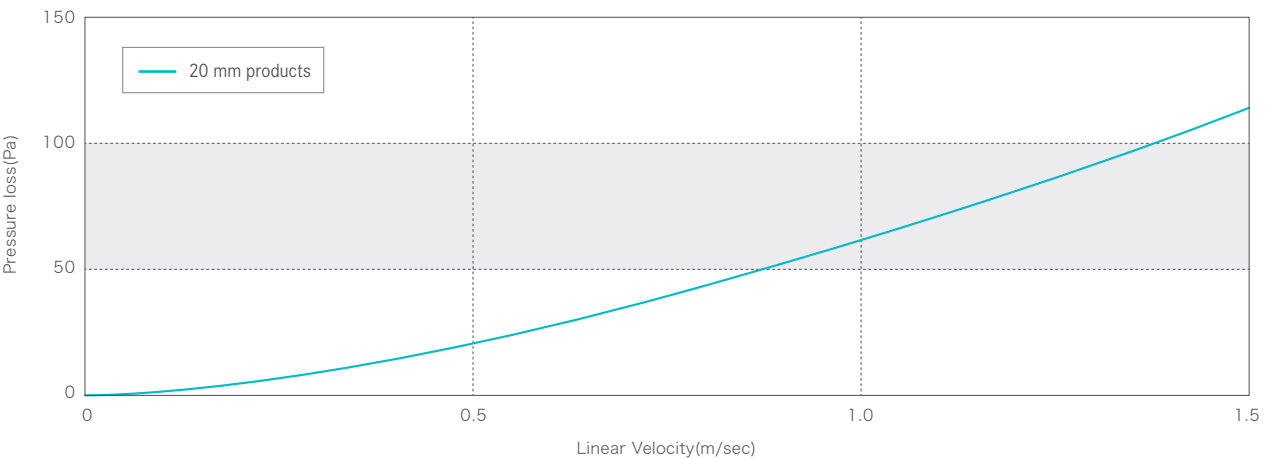
Name	Media	Thickness	Target gas	Main target gases
TERZETTO-K	Activated carbon	20mm	Organic gas	Organic gas, such as toluene and xylene
TERZETTO-H	Activated carbon/ Ion exchange resin	20mm	Acid gas	Acid gas, such as hydrochloric acid, nitric acid, and SO ₂
TERZETTO-N	Activated carbon/ Ion exchange resin	20mm	Alkaline gas	Alkaline gas, such as NH ₃ and amine

※For terms of use, etc., please refer to the "Request" on the back cover.



Pressure loss

TERZETTO



PurePUT®

Sheet-package gas adsorbent

Adsorbent with nonwoven packaging, compact, and easy-to-handle.



Features

- An adsorbent, which takes high performance fractured activated carbon as the base material, is packed with a nonwoven fabric sheet.
- Can be easily set in the exhibition case of the museum and repository because of its compact size. It is easy to put it in the packaging when carrying art, etc.
- No dust is generated owing to the nonwoven package, and hands will not get dirty during handling.



Sheet-package type



For static use



Types of target substances and media

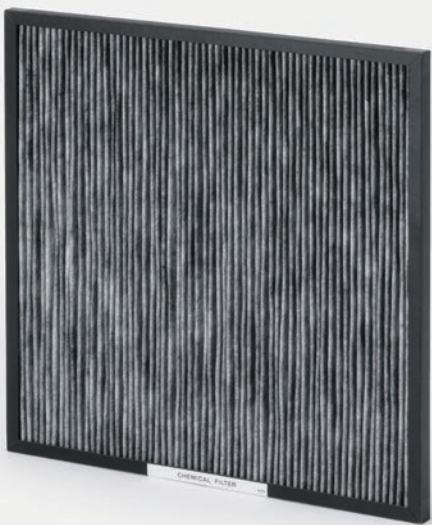
Name	Main target gases
PurePUT-H	Acid gas
PurePUT-N	Alkaline gas
PurePUT-K	Organic gas

※For terms of use, etc., please refer to the "Request" on the back cover.

Toleater®

Ceiling Cassette Type VOC Removal Filter

Just fit it into the package air conditioner to remove the VOC.



Features

- Low cost with excellent dust removal performance and removes VOCs, such as toluene and xylene, in a short time to create a comfortable space. Also, effective for indoor odor removal.
- Simply replace the long-life filter for the Ceiling Cassette. Can be used under normal operation of the air conditioner.



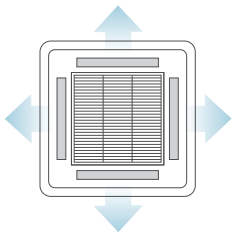
For Ceiling Cassette Type Package Air Conditioner



Pleated structure



Compatible models



Ceiling Cassette Type Package Air Conditioner **four-direction blow-out type**

Please check the manufacturer/model of your air conditioner and contact our sales department.

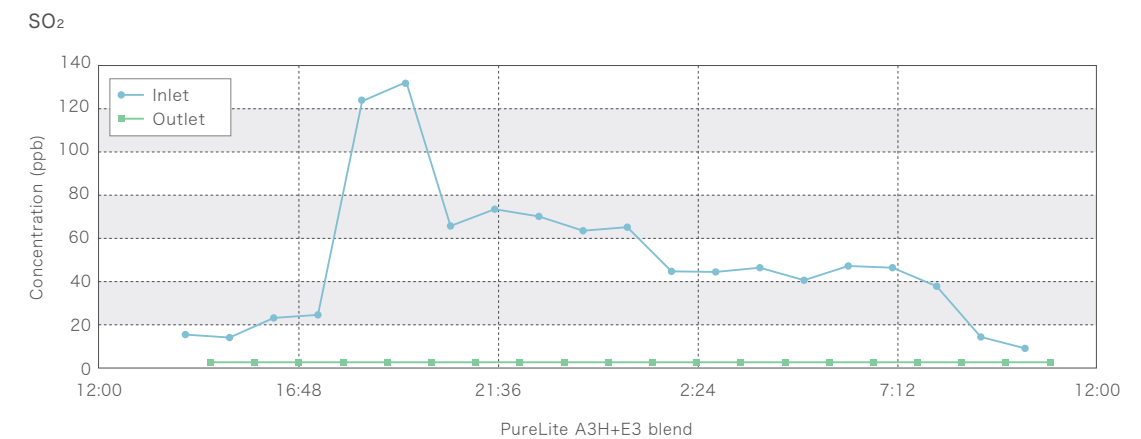
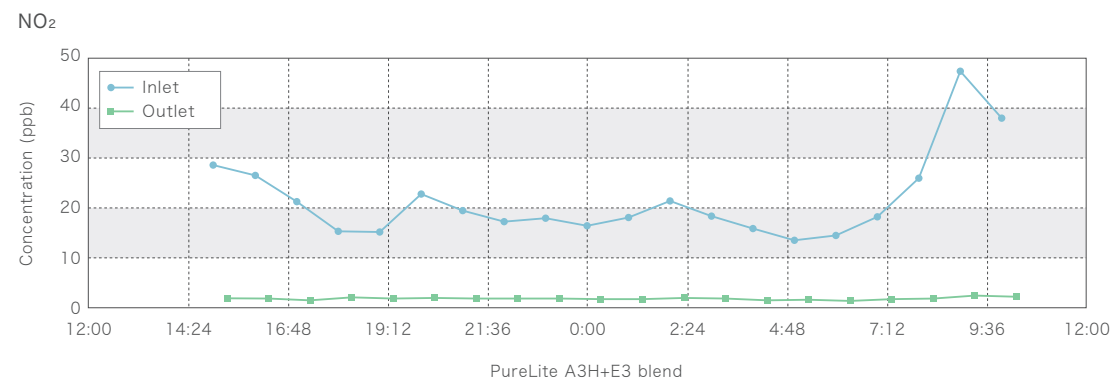
- * Please note that model of the Toleater differs depending on the manufacturer/model of the Ceiling Cassette Type Package Air Conditioner.
- * We may fail to meet your needs depending on the manufacturer/model of the Ceiling Cassette Type Package Air Conditioner.

※For terms of use, etc., please refer to the "Request" on the back cover.

Example of performance

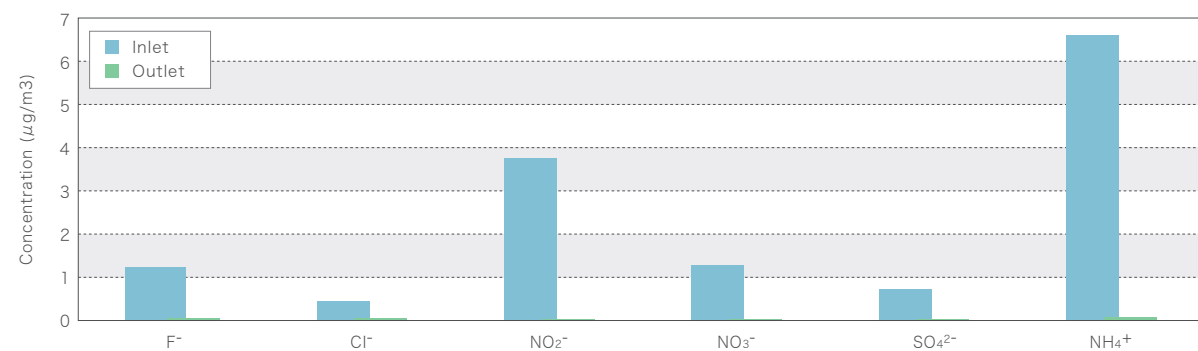
Example of removal performance of NO_x•SO_x

PureLite

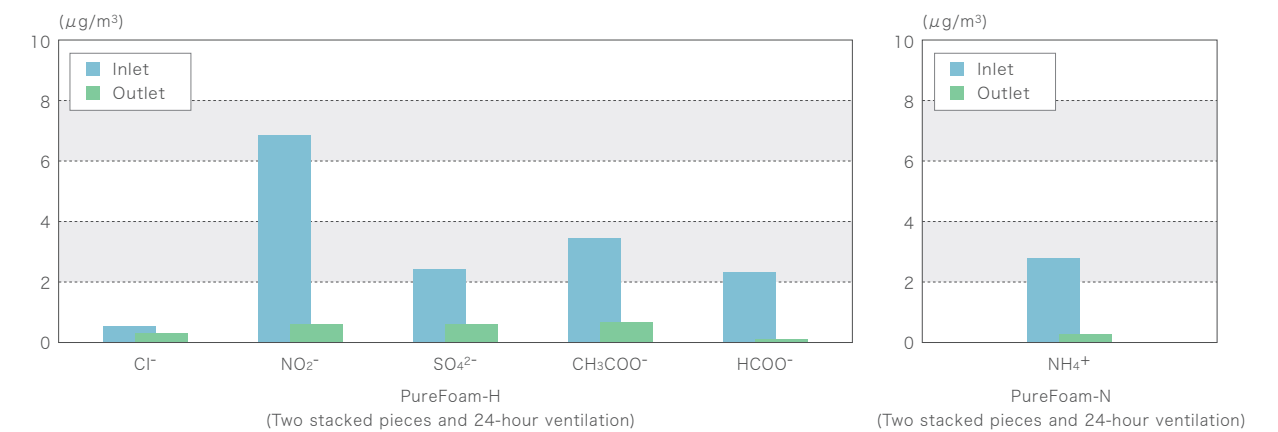


Examples of removal performance of acidic and alkaline substances

PureGate

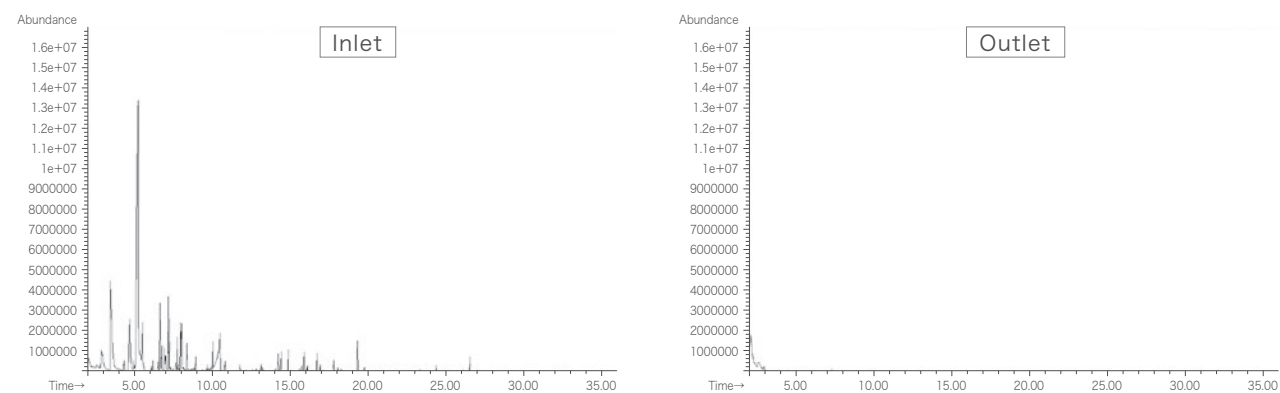


PureFoam

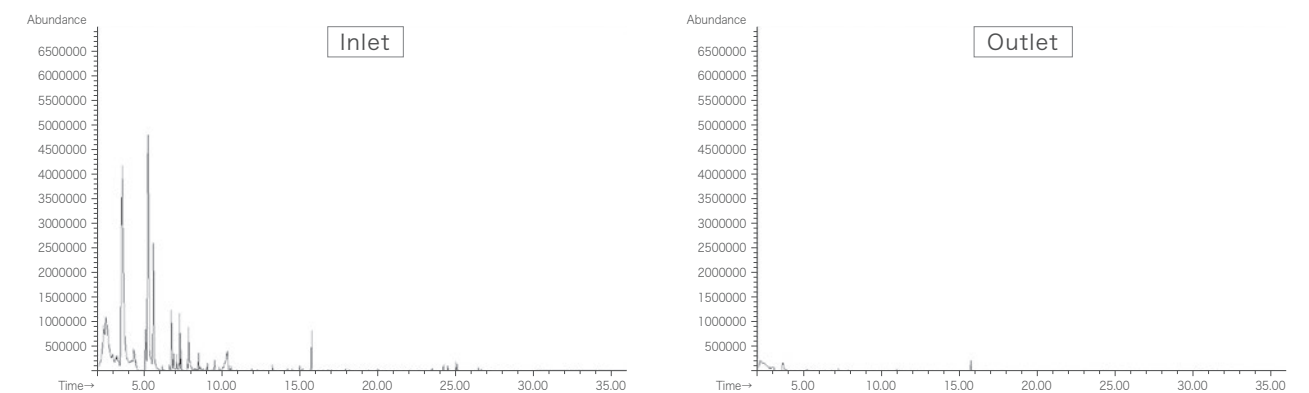


Example of removal performance of organic substances

PureMold



PureACT



Flow of introduction

From inquiry to
after-sales-and-follow-up service

Do you have such a problem?

- Production yield has declined
- Worry about deterioration of the collections
- Concerned about the cause of the odor
- Want to take measures against sick house syndrome



Quick and accurate environmental analysis and product development at our own research facility

Puretec owns a research facility and possesses high-performance analytical instruments. We have many researchers enrolled and can conduct quick and accurate measurement analyses. We analyze ultra-trace gases in the semiconductor clean room environment and develop air-cleaning agents and filters on a daily basis. Also, we are engaged in initiatives to address a variety of issues for customers, develop new materials, and conduct research to achieve high performance of the existing products.

STEP 1

Inquiry

Please feel free to contact us first. Our technical sales personnel are cognizant of the technology and will serve you from first contact through to after-sales maintenance. We are also waiting for your preliminary consultations before consideration of introduction.

STEP 3

Proposal of plan/Estimate

We will examine the usage conditions, such as the target gases, air volume, and installation location, select the optimum filter from a wide range of product lineups, design the system, and submit our proposal and estimate.

STEP 2

Hearing

Please inform us of the environment and conditions that are necessary to select the filter most appropriate to meet your needs and settle your problems.

- Purpose of use
- Place of use
- Processing air volume
- Target gas
- Desired lifetime
- etc.

If you have any questions or require more specialized knowledge, our technical sales personnel or research staff can visit the site directly and conduct surveys for an air quality analysis.

STEP 4

Construction

We will undertake construction under the management and supervision of technical sales personnel. We will also prepare detailed drawings in advance if necessary. It is also possible to measure the environment before and after construction and submit a report after completion of the construction.

STEP 5

After-sales-and-follow-up service

Degradation of chemical filters is difficult to notice visually. From consultation, such as "I feel that performance has deteriorated" to requests for periodic maintenance, such as "I want you to see it since several years have passed after the introduction," please entrust us with the after-sales-and-follow-up service.