# Precautions for use

(1) Odor-eliminating filters are sensitive to water. Avoid splashing water directly onto the filter. (2) For optimal performance, always use prefilters on the upstream side of the odor-eliminating filter. Some dust will be generated downstream of the granular activated carbon filter. Use an afterfilter, if necessary. See our catalogs for prefilters, afterfilters, and various medium and high-performance filtration products.

◎ We also manufacture products to nonstandard sizes. Please contact our sales representatives.

Contact





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ns for all products herein are subject to change without notice. DEOC17-04 (00-02



Harmful gas and odor filters

# Odopure



# Harnesses odor-eliminating media to remove various odors and harmful gases

# Selecting the ideal odor-eliminating filter-

The Odopure Series is available in several versions to meet specific requirements and site conditions. Consider the following five aspects when selecting the ideal odor-eliminating filter for a specific application:

1 Goal of purification and purification targets Consider the following five items: 2 Required filter properties Consider the following five items:

- What kind of air do you want to purify?
- (external air, indoor circulated air, exhaust air)
- What gaseous substances do you want to remove?
- What are the flow rate, temperature, and humidity of
- the air to be filtered?
- **4** Do you want a replaceable or disposable filter media?
- What's your price range?

# 2 Targeted gas removal performance3 Effects of other gas substances

• Pressure drop

- Safety (personal, equipment, facilities)
- Flame retardant or other required properties

## Main substances and odors

Substance	Comparable odor	Main sources
Ammonia	Biological waste products	Livestock pens, sewage treatment plants
Methyl mercaptan	Rotten onions	Pulp manufacturing plants, sewage treatment plants
Hydrogen sulfide	Rotten eggs	Livestock pens, pulp mills, sewage treatment plants
Methyl sulfide	Rotten cabbage	Pulp mills/plants, sewage treatment plants
Methyl dioxide	Rotten cabbage	Pulp mills/plants, sewage treatment plants
Trimethylamine	Rotten fish	Livestock pens, canned fish production plants
Acetaldehyde	Plants, vegetation	Chemical plants, fish waste treatment plants, tobacco plants
Isobutanol	Fermentation	Facilities where paint is handled
Ethyl acetate	Paint thinner	Facilities with printing processes or where paint is handled
Methyl isobutyl ketone	Paint thinner	Facilities with printing processes or where paint is handled
Toluene	Gasoline	Facilities with printing processes or where paint is handled
Styrene	City gas	Chemical plants, FRP product manufacturing facilities
Xylene	Gasoline	Facilities with printing processes or where paint is handled
Propionic acid	Pungent	Fatty acid manufacturing facilities, dyeing facilities
Normal butyric acid	Sweat	Livestock pens, starch production plants
Normal valeric acid	Damp socks	Livestock pens, starch production plants
Isovaleric acid	Damp socks	Livestock pens, starch production plants

Regulatory standard concentration and odor intensity grading (unit: ppm) as per Japanese Odor Control Law

Substanco	Regulated	Odor intensity grades						
Jubstance	range	1	2	2.5	3	3.5	4	5
Ammonia	1-5	0.1	0.6	1	2	5	10	40
Methyl mercaptan	0.002-0.01	0.0001	0.0007	0.002	0.004	0.01	0.03	0.2
Hydrogen sulfide	0.02-0.2	0.0005	0.006	0.02	0.06	0.2	0.7	8
Methyl sulfide	0.01-0.2	0.0001	0.002	0.01	0.05	0.2	0.8	2
Methyl disulfide	0.009-0.1	0.0003	0.003	0.009	0.03	0.1	0.3	3
Trimethylamine	0.005-0.07	0.0001	0.001	0.005	0.02	0.07	0.2	3
Acetaldehyde	0.05-0.5	0.002	0.01	0.05	0.1	0.5	1	10
Isobutanol	0.9-20	0.01	0.2	0.9	4	20	70	1000
Ethyl acetate	3-20	0.3	1	3	7	20	40	200
Methyl isobutyl keton	e 1-6	0.2	0.7	1	3	6	10	50
Toluene	10-60	0.9	5	10	30	60	100	700
Styrene	0.4-2	0.03	0.2	0.4	0.8	2	4	20
Xylene	1-5	0.1	0.5	1	2	5	10	50
Propionic acid	0.03-0.2	0.002	0.01	0.03	0.07	0.2	0.4	2
Normal butyric acid	0.001-0.006	0.00007	0.0004	0.001	0.002	0.006	0.02	0.09
Normal valeric acid	0.0009-0.0004	0.0001	0.0005	0.0009	0.002	0.004	0.008	0.04
Isovaleric acid	0.001-0.01	0.00005	0.0004	0.001	0.004	0.01	0.03	0.3

* Odor intensity grades					
Odor intensity	Descriptions				
0	Odorless				
1	Weak barely detectable smell (detection threshold concentration)				
2	Weak but detectable smell (perception threshold concentration)				
3	Readily detectable smell				
4	Strong smell				
5	Very strong smell				

# Odopure Series

# Pro Odc Odc



02



luct	Filter media and features	Product features	Filter structure	Page	
pure TS pure Tiden TS		<ul> <li>A synthetic resin sloped separator maximizes the performance of fibrous activated carbon.</li> <li>Several products offer medium-performance air filtration in addition</li> </ul>	- Pleated type	4	
pure BD	Fibrous activated carbon Media features • Excellent	<ul> <li>Thin, compact, cost effective</li> <li>Replaceable filter media</li> </ul>			
pure TR-F	adsorption speed • No scattering of carbon powder • Easy maintenance • Lightweight	<ul> <li>Incorporates eight filter units of Odopure BD</li> <li>Replaceable filter media, long life, and lower pressure drop</li> </ul>	T	5,6	
pure TR-GF		<ul> <li>Incorporates integrated filter units with granular activated carbon positioned on the upstream side and fibrous activated carbons on the downstream side.</li> <li>Replaceable filter media</li> <li>Simply remove the filter unit to replace the filter media.</li> </ul>	- Tray type		
pure TR-G		<ul> <li>Incorporates multiple filter units in each casing.</li> <li>Replaceable filter media</li> <li>Simply remove the filter unit to replace the</li> </ul>	Tray type		
pure FR	Granular activated	• Replaceable filter media Granular activated carbon filter media can be replaced from one side of the frame.			
pure FF	Carbon Media features • Removes general odors and organic substances • Filters various	• Replaceable filter media Granular activated carbon filter media can be replaced from one side of the frame.	Flattures	7,8	
pure WA	<ul> <li>Impregnated carbon</li> </ul>	• Easy maintenance and low cost	- riat type		
pure HC		• Honeycomb core structure for low pressure drops			
pure CT		• Features sheet-shaped absorbent filter media made by impregnating and covering urethane foam with activated carbon for excellent absorption performance. Fast-acting adsorbent for high adsorption speed	Flat sheet type		
pure NR	various products utilizing activated carbon Media features • Flexible shapeability	<ul> <li>Sheet format filter unit sandwiches activated carbon between pleated nonwoven fabric layers for low pressure drop and long-lasting performance.</li> <li>This type can also be used with a single filter unit.</li> </ul>	Non-woven type		
pure HA	• Lightweight	• Two types are available: paper honeycomb type in which activated carbon paper is processed into a corrugated honeycomb and carbon honeycomb type in which activated carbon is formed into a honeycomb structure	Honeycomb type	10	

Fibrous Activated Carbon

# For office space air as pure as that of a museum

# Features of fibrous activated carbon

- 1 Odor eliminating / medium performance filter unit utilizing the basic characteristics and flexible shapeability of fibrous activated carbon
- 2 Adsorption speed roughly ten times that of granular activated carbon
- 1) The outer surface area that comes into contact with microvolume contaminants is about 200 to 700 times larger. 2) Micropores that trap trace contaminants exist over the entire fiber surface.
- 3 Lightweight, high adsorption capacity
- 4 Choose from the four types based on the targeted gases and odors (1. Basic gas 2. Acid gas 3. Organic gas 4. Mixed)
- 5 Eliminates dust/carbon powder scattering Configuration prevents contamination of the ambient environment
- 6 Easy maintenance and lower operating costs

# Fibrous Activated Carbon and Granular Activated Carbon

	Fibrous activated carbon	Granular activated carbon
Size	Thickness 10–20 $\mu$ m	Size 1–3mm
Specific surface area (m <sup>2</sup> /g)	700–2000	900–1200
Outer surface area (m <sup>2</sup> /g)	0.2–0.7	≤0.001
Micropore diameter (nm)	≤2.5	_
Fibrous/granular activated carbon micropores	Fibrous activated carbon surface micropore	Granular activated carbon surface
Electron microscope (Magnification: 1000)	SPUE	

# Types and features of fibrous activated carbon filters

Туре	Product Name	Features				
Pleated type, odor eliminating filter	Odopure TS	• Lightweight type	• The slo separa	pe-shaped or specification		
Pleated type, medium performance odor eliminating filter	TAIDEN TS	Lightweight type     Two grades of dust collection efficiency are available: 90% and 65%     and large air flow rat				
Thin, pleated type, odor eliminating filter	Odopure BD	Compact and lightweight     Low pressure drop				
	Odopure TR-F	• Lightweight type	<ul> <li>Tray type products</li> </ul>	<ul> <li>Replaceable</li> </ul>		
Tray type, odor eliminating filter	Odopure TR-GF	<ul> <li>New type integrates special granular activated carbon and ACF.</li> <li>Can also incorporate prefilters</li> </ul>	produce low pressure drops and large air flow	filter media		

# Types and features of fibrous activated carbon

Removal target	Basic gas	Acid gas	Organic gas	Mixed odors
Fibrous activated carbon type (ACF)	Туре А	Туре В	Type S	Types D, SD
Main targeted gases and odors	Ammonia Trimethylamine	Hydrogen sulfide Methyl mercaptan Chlorine Nitrogen dioxide Sulfur dioxide	Acetaldehyde Butyric acid Ethyl acetate Methyl isobutyl ketone Toluene Valeric acid	Human Body odors Cooking odors Food aromas Sewer odors Packaging room odors Lavatory odors

# Odopure TS



• Handles a large air flow rate • Two types available: a Standard type, and an energy saving, low pressure drop type. • Two thicknesses for the standard

# Odopure Taiden TS



Product efficiency is measured as per JIS B 9908 Format 2 (colorimetric method).

- A type with a medium-class dust removal function added to the odor eliminating function
- Two colorimetric efficiency levels:
- 90% and 65%. • Two thicknesses for the standard
- type: 290mm and 150mm.

# **Components and Materials**

Туре	Odopure
Flame	
Filter media	Fibrous activated Non-wov
Separator	
Sealant	Spe
Packing material	



type: 290mm and 150mm.





# **Standard Specifications**

Removal target	Filter type	Product No.	Filter thickness (mm)	Standard size (mm) W x H x Y	Rated air flow rate (m <sup>2</sup> /mm)	Pressure drop (Pa)	Weight (Kg)
	Standard	ODIC AD	290	610×610×290	56	70	9.0
	type	UP15-AZ	150	610×610×150	40	70	6.0
	Low pressure		290	610×610×290	56	50	8.5
	drop type	OF 13-A	150	610×610×150	40	50	5.5
	Standard	ODTC DO	290	610×610×290	56	70	9.0
	type	UP15-D2	150	610×610×150	40	70	6.0
Aciu yas	Low pressure	ODTC R	290	610×610×290	56	50	8.5
	drop type	UP15-D	150	610×610×150	40	50	5.5
	Standard type	oPTS-S2	290	610×610×290	56	70	9.0
			150	610×610×150	40	70	6.0
Organic gas	Low pressure		290	610×610×290	56	50	8.5
	drop type	0F13"3	150	610×610×150	40	50	5.5
Marcal	Standard		290	610×610×290	56	140	9.5
	type	UF15-5D	150	610×610×150	40	140	6.5
	Low pressure		290	610×610×290	56	50	8.5
	dron type	OPIS-D	150	610 × 610 × 150	40	50	E E



## **Standard Specifications**

Farget Substance	Product No	Particle collect	ion ratio (%) *1	(%) *1 Colorimetric method Filter thickness		Standard size (mm)	Rated air	Initial	Weight
rarget substance	rioducento.	0.4 µ m	0.7 µ m	efficiency(%)*	(mm)	WxHxT	(m <sup>3</sup> /min)	(Pa)	(Kg)
		>70%	>80%	00	290	610×610×290	56	100	9.0
Rasic gas	OF13=90A2	27070	20070	90	150	610×610×150	40	100	6.0
	ODTS 6EAD	>10%	>50%	65	290	610×610×290	56	90	9.0
	OF13-03AZ	24070	20070	05	150	610×610×150	40	90	6.0
	ODTS 00P2	>70%	S8006	00	290	610×610×290	56	100	9.0
Acid gas	OF 13=90B2	27070	20070	90	150	610×610×150	40	100	6.0
Aciu yas	OPTS-65B2	≥40%	≥50%	65	290	610×610×290	56	90	9.0
					150	610×610×150	40	90	6.0
	OPTS-90S2	≥70%	≥80%	90	290	610×610×290	56	100	9.0
Orappicape					150	610×610×150	40	100	6.0
	OPTS-65S2	≥40%	≥50%	65	290	610×610×290	56	90	9.0
					150	610×610×150	40	90	6.0
		>70%	<b>&gt;80%</b>	00	290	610×610×290	56	170	9.5
	OF13-903D	27070	20070	90	150	610×610×150	40	170	6.5
		>4004	>50%	65	290	610×610×290	56	160	9.5
	OF13-033D	24070	200/0	05	150	610×610×150	40	160	6.5

\*1 The wording is as per JIS B 9908:2011. \*2 The wording is as per JIS B 9908:2001.



OPTS-90A2.90B2.90S2







### Structure



The filter separation method uses a slope-shaped separator (made of synthetic resin) specially made to reduce pressure drops and to maximize the performance of fibrous activated carbon.



# Standard specifications

Removal target	Product No.	Casing size (mm) W x H x D	Filter unit size (mm) W x H x T	Rated air flow rate (m³/min)	Pressure drop (Pa)	Weight (Kg)
Basic gas	OPTR-4TB•A	610×610×460	600 imes400 imes35 imes 8 units	56	180	88
Acid gas	OPTR-4GH∙B	610×610×460	600×400×35× 8 units	56	180	81
Organic gas	OPTR-4GG•S	610×610×460	600×400×35× 8 units	56	180	83
Mixed	OPTR-4GG•D	610×610×460	600 imes400 imes35 imes8 units	56	180	83

### Components and materials

	ltem	Material		
	Casing	Bonderized plate	• Black	
<b>F</b> -1.	Frame	Bonderized plate	half luster,	
Filter unit	Air inflow side reinforcement mesh net	Punching metal	baking	
	Air outflow side reinforcement mesh net	Metal lath	coating	

OPTR-4TB+A,4GH+B,4GG+S,4GG+D

its original position.



# Odor-eliminating granular activated carbon filters selectable based on targeted gases and odors

# Features of granular activated carbon filters

Granular activated

carbon filter

- 1 Two types, thick tray and thin flat types, are available.
- 2 Flat types are available in replaceable and easy maintenance disposable filter media.
- 3 Honeycomb core structure type is available for low pressure drop.
- 4 A range of function types are available to target specific gases and odors.

# Types and features of granular activated carbon filters Specially treated activated carbon ... Functional activated carbon that improves overall functionality TB ... Excellent capabilities for removing basic gases (e.g., ammonia, trimethylamine) GH ... Excellent capabilities for removing acid gases (e.g., hydrogen sulfide, mercaptan) T-C ... Excellent capabilities for removing neutral gases (e.g., methyl sulfide, methyl dioxide, styrene) AD ... Effectively removes acetaldehyde and formaldehyde.

- Granular activated carbon ... Different products are available to meet a wide range of needs. These products incorporate two types of carbon: crushed carbon and formed (cylindrical) activated carbon. Both types of carbon use coconut grains and coals as raw materials. GG ... Granular activated carbon with the required adsorption power & particle size can be selected according to your needs in terms of the type and concentration of the gas to be adsorbed. High hardness prevents powder generation. SA ... Activated carbon that has both physical adsorption power and oxidation catalytic chemical adsorption power, and is effective for high to low concentrations.

## Examples of specifications of granular activated carbon

	Removal target	Basic gas	Acid gas	Neutral gas			
Gra (Cyl	nular carbon brand indrical shape: 4-6 mesh)	4T-B	4G-H	4GG	4SA	4T-C	AD
Bull	k density (g / ml)	0.50-0.60	0.40-0.45	0.43-0.48	0.48-0.55	0.48-0.56	0.46-0.55
	shed carbon brand ctured: 4-8 mesh)	T-B 4/8	G-H 4/8	GG 4/8		T-C 4/8	AD-6
Bull	k density (g / ml)	0.50-0.62	0.43-0.47	0.45-0.52		0.48-0.56	0.53
Har	dness (%)	>95	>95	>95	>95	>95	>93
Los	s on drying (%)	<30	<5	<5	<5	<20	<10
Ben	zene adsorption power (%)	—	>38	>33	>25	>30	_
Its	Hydrogen sulfides		O	0	0		
nen	Methyl mercaptan		O			O	
IOd	Styrene		0	O	0	0	
ШO	Ammonia	O					
as c	Trimethylamine	O					
it g	Methyl sulfide				Ó	Ô	
arge	Methyl disulfide				Ō	Ô	
μ,	Aldehydes						0

# Tray type activated carbon filter

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# Standard Specifications

				00									
Odopure TR-G	Removal target	Product No.	Casing size (mm) W x H x D	Filter unit size (mm) W x H x T	Rated air flow rate (m³/min)	Pressure drop (Pa)	Weight (kg)	1	50	OPTR	-4TB,4GH	I,4GG,4TF	
	Basic gas	OPTR-4TB	610×610×460	600×400×35× 8 units	56	130	94	(Pa)	00		+		
	Acid gas	OPTR-4GH	610×610×460	600×400×35× 8 unit	56	130	84	drop	50		+-		+
	Organic gas	OPTR-4GG	610×610×460	600×400×35× 8 unit	56	130	86	ssure			—		_
	Aldehyde	OPTR-4TF	610×610×460	600×400×35× 8 units	56	130	90	Pre	50		$\perp$		_
and the second	* Granular ac	tivated carbo	on (4-5 mesh) is used	for the refill.					。				
	Compo	nents a	and materia						0	10 20 Air f	30 4 low rate	10 50 (m³/min)	60
	ltem	Casin	g Uni	it frame Unit rei	nforcement n	nesh net							
Contraction of the local division of the loc	Material	Bonderite ste	eel sheet Black half gl	oss baking finish P	unching me	tal							
	Replac	ing Oc	dopure TR	-G filter m	edia			Note: We Av	ear glo oid ha	oves wher ndling wi	replacii th bare	ng filter r hands.	media
<ul> <li>Replaceable filter media</li> <li>Incorporates 8 filter tray units</li> <li>Easy maintenance</li> </ul>	1 Re the use	move then removed activ	the tray lid, we the ated	<ul> <li>Replace carbon. times to</li> </ul>	with (f Shake evenly	ill in) i up an	new a d dow erse th	nctivate vn a fev he	d	And	Put t lid in p o s	he tray to i t i o	y n.

# Types of granular activated carbon filter

ilter design	Filter media	Frame type	Item version
Tray type	Replaceable	One sided frame removable type	Odopure TR-G
	Replaceable	One sided frame removable type	Odopure FR
Elat tupo	періасеаріе	Wooden type	Odopure FF
пастуре	Disposable	Lid removable	Odopure WA
	ызрозаріе	Honeycomb core type	Odopure HC

ter design	Filler meula	Fiame type	item version
Tray type	Replaceable	One sided frame removable type	Odopure TR-G
	Replaceable	One sided frame removable type	Odopure FR
lat type	періасеаріе	Wooden type	Odopure FF
lat type	Disposable	Lid removable	Odopure WA
	ызрозаріе	Honeycomb core type	Odopure HC



# Flat type activated carbon filter (thin, compact)



# Standard Specifications

emoval target	Product No.	Standard size (mm) W x H x D	Rated air velocity	Pressure Granular activated carbon	drop (Pa) Crushed activated carbon	Weight (kg)
unger		(10)((10)(20)	(m/sec)	(4-6 mesh)	(4-8 mesh)	(ing)
	OPER-ATR	610×610×20		29	60	3.5
asic gas	OPER-TR	610×610×25	0.5	41	83	4.5
	OTTICID	610×610×50		97	198	9.6
Acid gas	OPFR-4GH OPFR-GH	610×610×20		29	60	3.0
		610×610×25	0.5	41	83	3.8
		610×610×50		97	198	8.0
	OPFR-4GG OPFR-GG	610×610×20	0.5	29	60	3.1
ganic gas		610×610×25		41	83	4.0
		610×610×50		97	198	8.3
		610×610×20		29	60	3.4
ldehyde	OPER-TE	610×610×25	0.5	41	83	4.4
	OFTIM-IF	610×610×50		97	198	9.3

using granular activated carbon. The lower line indicates that of the model using crushed activated carbon

Comp	onents and m	aterial	
Item	Frame	Pressor net	Spi
Material	Aluminium	Zinc wire mesh net	Lauan



OPFF-4TB,4GH,4GG,4T OPFF-TB,GH,GG,TF

comp	onents and m	aterial	
ltem	Frame	Pressor net	Spacer
Material	Aluminium	Zinc wire mesh net	Lauan wood

# Standard Specifications

eniovai	0 1	Stanuaru Size (IIIIII)			vvelant	
target	Product No.	WxHxD	air velocity (m/sec)	Granular activated carbon (4–6 mesh)	Crushed activated carbon (4–8 mesh)	(kg)
	ODEE ATD	610×610×20		41	83	5.5
asic gas	OPFF-41B	610×610×25	0.5	52	106	6.8
	OFFF-ID	500×500×50		108	221	9.5
		610×610×20		41	83	4.7
	OPFF-4GH OPFF-GH	610×610×25	0.5	52	106	5.8
		500×500×50		108	221	8.1
	OPFF-4GG OPFF-GG	610×610×20	0.5	41	83	4.8
ganic gas		610×610×25		52	106	5.9
		500×500×50		108	221	8.5
ldehyde		610×610×20		41	83	5.4
	OPFF-41F OPFF-TF	610×610×25	0.5	52	106	6.6
		500×500×50		108	221	9.6
r each tar	neted gas, the	upper line in the P	roduct No.	indicates the	e pressure dr	op of the mo

wing granular activated carbon. The lower line indicates that of the model using crushed activated carbon. \* For a thickness of 50 mm, 500 mm is the maximum dimensions for W and H.

Components and material

ltem	Frame	Pressor net	Spacer
aterial	Stainless	Stainless wire mesh net	Stainless

	(	1	
-	_		
_			

# Standard Specifications

Removal		Standard size (mm)	Rated	Pressure drop (Pa)		Weight
target	Product No.	WxHxD	air velocity (m/sec)	Granular activated carbon (4–6 mesh)	Crushed activated carbon (4–8 mesh)	(kg)
		610×610×15		29	60	3.1
Basic gas	OPWA-41B	610×610×20	0.5	41	83	4.1
	OF WA-ID	610×610×45		97	198	9.0
		610×610×15		29	60	2.6
Acid gas	OPWA-4GH OPWA-GH	610×610×20	0.5	41	83	3.4
		610×610×45		97	198	7.4
	OPWA-4GG OPWA-GG	610×610×15	0.5	29	60	2.7
Organic gas		610×610×20		41	83	3.5
		610×610×45		97	198	7.7
		610×610×15		29	60	3.0
Aldehyde	OPWA-41F	610×610×20	0.5	41	83	3.9
	or marti	610×610×45		97	198	8.7

For each targeted gas, the upper line in the Product No. indicates the pressure drop of the mod using granular activated carbon.
 The lower line indicates that of the model using crushed activated carbon.
 For metal frames (e.g., aluminum formed), add 5 mm to the thickness (D mm) in the table abov



Item	Frame	Pressor net	Spacer
Material	Lauan wood	Zinc wire mesh net	Lauan wood

		100
		88
		58
	83	88
and the second	-	63
		83
		83
		3
		1
		and the second se
		No. of Concession, Name

Dispo

This low pressure drop model uses a paper honeycomb core

as a spacer.

# Standard Specifications

filoducervo.	M/D	air velocity	1.1.1	weight
target	WXHXD	(m/sec)	Granular activated carbon (4-6 mesh)	(kg)
	610×610×15	0.5	9	2.5
Basic gas OPHC-41B	610×610×20	0.5	12	3.4
	610×610×15	0.5	9	2.1
Acid gas OPHC-4GH	610×610×20	0.5	12	2.8
	610×610×15	0.5	9	2.2
Organic gas Orne-4dd	610×610×20	0.5	12	2.9
	610×610×15	0.5	9	2.5
OFfic-411	610×610×20	0.5	12	3.2

Item	Frame	Pressor net	Spacer
Material	Lauan wood	Lexnet <sup>®</sup>	Paper honeycomb cor





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# A range of filters that take advantage of the features of activated carbon to meet specific needs

# Sheet-formed activated carbon filters

Uses a sheet-formed adsorbent made by impregnating and covering urethane foam with highly absorptive activated carbon. Features high air permeability and shape stability.



# Sheet types and features

ltem	product No.	# 1000	# 2000	
Application		For general use	For air conditioning	
Thickness	(mm)	2, 3, 5, 10	5, 8, 10	
Activated	carbon content (%)	30-60	30-60	
Base fabric		Polyether urethane foam Polyester urethane f		
Activated carbon		Coconut powder activated carbon (KURARAY COAL™) Coconut powder activated carbon (KURARAY COA		
Specific surface area		$\geq$ 500 m <sup>2</sup> /g		
Adsorption	Benzene adsorption power	≥ 20%		
periormatice	Amount of iodine absorbed	≥ 700 mg/g		
	Thickness (mm)	10	10	
Shrinkage	50 °C × 24 hr	0 to -0.3	0 to -0.1	
(%)	70 °C × 24 hr	0 to -0.5	0 to -0.4	
	100 °C × 24 hr	0 to -0.4	0 to -0.3	

### Standard Specifications

Components and

Item Material

Frame Aluminum Pressor foot net Zinc mesh net

material

ltem No.	ilter media thicknes (mm)	s Standard size (mm) W x H x T	Rated air velocity (m/sec)	Pressure drop (Pa)	Weight (Kg)
OPCT-1000	5	610×610×10	0.5	15	0.9
	10	610×610×15	0.5	29	1.0
OPCT-2000	5	610×610×10	0.5	1	0.9
	10	610×610×15	0.5	2	1.0

**OPCT-1000** 

**OPCT-200** 



- High adsorption speed
- No breakdown of activated carbon or powder generation
- Adjustable activated carbon
- amounts • Features high air permeability and
- effective dust collection
- Various base materials available

# Nonwoven activated carbon filter



A pleated sheet filter unit is composed of activated carbon sandwiched by non-woven fabric layers. The pleated structure contributes to low pressure drop and long-lasting performance

### Standard Specifications

Item No.	Filter media thickness (mm)	Standard size (mm) W x H x T	Rated air velocity (m/sec)	Pressure drop (Pa)	Weight (Kg)
		610×610×35	1.0	29	1.7
OPNR-35MK	2.5	610×610×50	1.5	32	2.4
		610×610×65	2.0	39	3.0

### Components and material

Item Material Frame Aluminum Aluminum



# Activated carbon honeycomb filters



Paper honeycomb type

 Made of activated carbon and pulp to allow disposal as combustible after use





Carbon honeycomb type

• High specific surface area to treat/remove gas substances Lower pressure drop than granular activated carbon Easy handling and replacement compared to granular activated carbon

and chemicals

<ul> <li>Holds la</li> </ul>	irge volu	ime of ac	tivated c	arbon.
	<u> </u>			

- Moderate rigidity for pleating processing
- Low pressure drop

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- Excellent results based on a combination of different
- activated carbon/other active substances



This is a filter created by taking advantages of the combined features of activated carbon and a honeycomb structure. Two types, paper honeycomb type and carbon honeycomb type are available for filter

media.

# Types of paper honeycomb filters

Activated carbon paper types	DC121	DC141
Activated carbon paper thickness (mm)	0.36±0.04	$0.20 \pm 0.02$
Activated carbon paper basis weight (g/m <sup>2</sup> )	110	65
Activated carbon content ratio (%)	70	70
	40	*
	85	90
Type of cells	110	120
	120	130
	*	210
* Cells · Cells (grids) per cm <sup>2</sup>	*	300

\* A high-performance model is available for the DC14

umber of H

10

45

10

45

cells

85

210

Standard Specifications

Product number

OPHA-121

OPHA-141

greater external surface area per efficiency in one-time ventilation. concerns about dust generation

### Components and torial

ΠαιθΠαι		
ltem	Materials	
Frame	Aluminum	
Pressor foot net	Aluminum	

0.5 1 Air flow velocity (m/sec

OPHA-121 85 cells



Honeycomb dimensions:

1) Width: 50–600 mm

2 Height: 2–610 mm

① Diameter: 800 mm

0.5

1.5

0.5

1.5

610×610×15

610×610×50

610×610×15

610×610×50

2 Thickness: 25–300 mm

ure drop Weig

1.3 1.4

3.0 1.4

55 3.3

(kg)

3.2

(Pa)

30

③ Thickness: 5–600 mm (For cylindrical type)

# Carbon honeycomb properties

ltem	Standard Value
Specific surface area	650m <sup>2</sup> /g or over
Pore volume	0.3ml/g or over
Aperture ratio	55-75%
Bulk density	0.25-0.40g/ml

### Carbon honeycomb standard sizes

① Dimensions: 150mm x 150mm (2) Thickness: 30mm ③ Cells: 300cell/in<sup>2</sup>

## Standard Specifications

Product number	Honeycomb thickness (mm)	$\begin{array}{c} \text{Standard size (mm)} \\ \text{W} \times \text{H} \times \text{T} \end{array}$	Rated air velocity (m / sec)	Pressure drop (Pa)	Weight (kg)
00114 200	30	610×610×60	1.0	37	7.7
0PHA-300	90	610×610×130	2.77	300	15

### Components and material

ltem	Materials
Frame	Stainless
Pressor foot ne	tStainless mesh net
Reinforcement bar	Stainless



• High resistance to heat, water,

