

PEA Type (Adsorption) (Diatomaceous Earth)

The PEA cartridges, manufactured with polyolefin non-woven media composed of diatomaceous earth and extra-fine glass fibers, are unprecedented pleated filters. The PEA cartridges are capable of removing turbid and colloidal substances effectively by synergy effect of diatomaceous earth and glass fibers.

Features

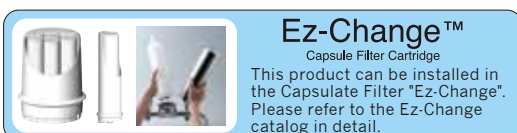
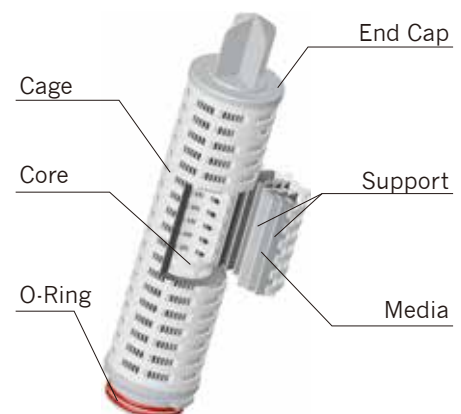
- Using fine glass fibers and diatomaceous earth as filter media, the PEA cartridges can efficiently remove the suspended colloidal solid such as the cause of turbidity that could not be removed by conventional filters.
- The PEA cartridges can be the most suitable filter as clarification filters for mainly tea-based beverage, distilled liquor, and wine, due to adsorption effect on the causative agent of sediments, such as organic fatty acids and polyphenols, as well as suspended solids.
- Using the PEA cartridges as prefilters to membrane filters, the service life of membrane filters can be prolonged, resulting in running cost reduction.
- Compared to filtration equipment with diatomaceous earth pre-coating or disk filter of diatomaceous earth, the PEA cartridges can save filter replacement time and waste disposal cost as they are just cartridges.
- The PEA cartridges can be used safely for food and beverage application as they comply with FDA 21 CFR.
- By properly adjusting the contents of diatomaceous earth, extra-fine glass fiber and polyolefin non-woven media and controlling the thickness and density, the PEA cartridges can reduce the Thermotolerant Acidophilic Bacteria (TAB) which is the cause of product deterioration in beverage industry in recent years.



Major Applications

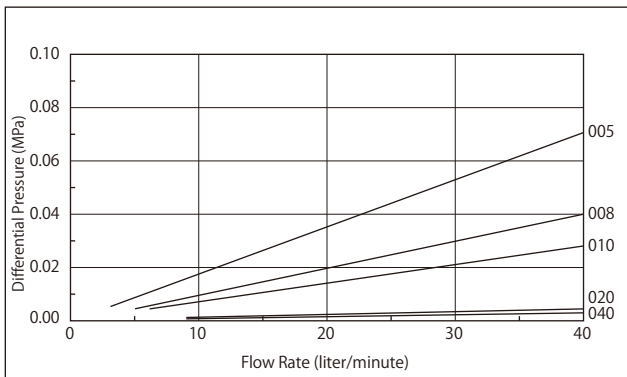
- Clarification filtration for soft drink such as tea-based beverage
- Clarification filtration for liquor such as distilled liquor and wine
- Clarification filtration for liquid sugar such as isomerized sugar
- Prefilters for membrane filters
- Others

Materials of Construction



Differential Pressure vs Flow Rate

Fluid: Water (20°C)
Cartridge Length: 250mm



* The data do not include piping pressure drop.

Particle Removal Efficiency

Particle Size (μm)	Particle Removal Efficiency (%)				
	005	008	010	020	040
0.8	>99.9	>99.5	>99.5	>99.0	>97.5
1.0		>99.9	>99.5	>99.5	>99.5
2.0			>99.9	>99.9	>99.5
4.0					>99.9

<Test Condition >

Equipment: Particle Counter in Liquid

Filtration : Single Pass

Fluid : Refined Water

Flow Rate : 10 liter/minute

Dust : ACFD+Latex Beads

Bacteria Challenge Test

PEA Filter Cartridge (LRV)

Grade	005	008
Biological Indicator	Alicyclobacillus acidoterrestris	
LRV	≥5	≥4

*The above data are based on our test condition, and are not guaranteed value.

Ordering Information

2 5 0 L



[Nominal Length]

125 = 125mm
250 = 250mm
500 = 500mm
750 = 750mm

PEA



[Product Type]

0 1 0



[Micron Rating]

005 = 0.5μm
008 = 0.8μm
010 = 1.0μm
020 = 2.0μm
040 = 4.0μm

S



[Gasket/O-Ring]

S = Silicone
E = EPDM
N = NBR
V = FKM
T = FEP Encapsulated FKM (for 0, 5, 7)
PTFE (for F)

7



[End Cap Code]

F = Flat Gaskets
0 = 2-222 O-Ring
5 = 2-222 O-Ring +Fin
7 = 2-226 O-Ring +Fin

F



[Packaging Code]

A = 1pc
B = 6pcs
C = 10pcs
F = 25pcs

Specification

Product Type	PEA				
Grade	005	008	010	020	040
Micron Rating (μm)	0.5	0.8	1.0	2.0	4.0
E.F.A. (m ³ /250L)	0.2	0.22	0.3	0.48	0.64
Dimensions	Length (mm)	125 / 250 / 500 / 750			
	O.D. (mm)	70.0			
	I. D. (mm)	26.1 (for F) / 25.6 (for 0, 5) / 30.0 (for 7)			
Materials Media	Media	Polyolefin / Diatomaceous Earth / Glass Fiber			
	Support	Polypropylene			
	Core	Polypropylene			
	Cage	Polypropylene			
	End Cap	Polypropylene			
	Gasket/O-Ring	NBR / EPDM / Silicone / FKM / FEP Encapsulated FKM (for 0, 5, 7) / PTFE (for F)			
	Maximum ΔP (MPa)at 20 °C	0.49			
	Maximum Operating Temp .(°C)	80			
	Adaptable Food Sanitation Standard	All raw materials meet the requirement of FDA 21 CFR ※1			

※If you need further information on specifications (length, end cap type, O-ring, gasket etc.), please contact us.

※1 Applicable Gaskets and O-ring materials exclude EPDM.

Manufacturing is based on our Quality Management Systems that meet ISO9001 standards.



Scope: Design, Development, manufacture, and sales of filter cartridges, housings and filtration equipment.

End Cap Code



*The contents of the catalog is subject to change without notice.