


POLY-EARTH
PED Type
Major Applications
Clarification for Food and Beverage

Beer, Wine, Whisky, Distilled spirits, Japanese Sake, Tea-based beverages, Vinegar, Soy sauce, Syrup, Flavor and Fragrance, Oils and fats

Features

- Micro glass fiber filter media containing diatomaceous earth
- Pleated structure with high accuracy and high porosity

Advantages

- Effectively removes colloidal suspensions that cause turbidity
- Adsorption and removal of starch-causing substances such as organic fatty acids and polyphenols
- No need for set-up procedures, such as filtration aids in filtration equipment
- Long service life
- Effective as a pre-filter for membrane filters
- Removal of heat-resistant acidophilic bacteria (TAB) that cause food deterioration (filtration grade: 0.5, 0.8 μm)

Quality standards

- **Adaptable Food Sanitation Standard**
 - FDA 21 CFR ^{*1}
 - EC No.1935/2004, EU No.10/2011 ^{*2}
- **Heat sterilization durability** (Available with Code7 of End cap code.)
 - Steam 126°C (258.8°F) x 30 minutes x 10 cycles

^{*1} Applicable Gaskets and O-ring materials exclude EPDM.
^{*2} Applicable Gaskets and O-ring materials are silicone only.

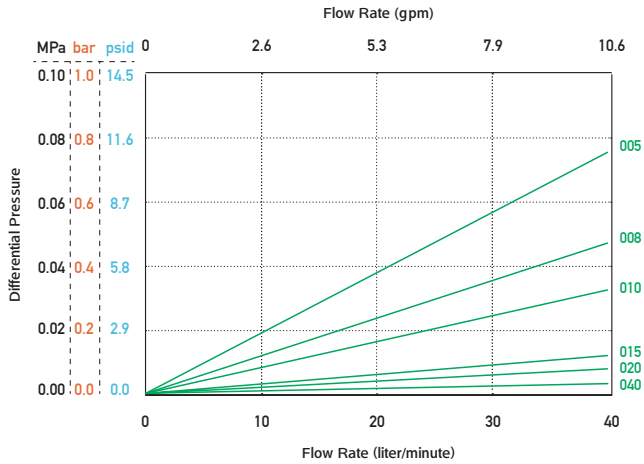
Specifications

	005	008	010	015	020	040
Grades	005	008	010	015	020	040
Micron Ratings (μm)	0.5	0.8	1.0	1.5	2.0	4.0
E.F.A. (m²/250mm)	0.2	0.22	0.3	0.29	0.48	0.64
Media	Polypropylene, Diatomaceous Earth, Glass Fiber					
Materials	Polypropylene					
Core/Cage/Support	Polypropylene					
End Cap	Polypropylene					
Maximum ΔP	0.49MPa at 20°C (71psi at 68°F)					
Maximum Operating Temp	80°C (176°F)					
Length	125/250/500/750 mm					
Dimensions	70.0mm					
O.D.	26.9 (for 3, 4)/26.1 (for F)/30.0 (for 7) mm					
I.D.						
Recommended flushing volume (Refined Water/250mm)	40L					

*If you need further information on specifications (length, end cap type, etc.), please contact us.

Differential Pressure vs Flow Rate

Fluid: Refined Water 20°C (68°F) / Cartridge Length: 250mm



Particle Removal Efficiency

Grades Particle Size (μm)	Particle Removal Efficiency (%)					
	005	008	010	015	020	040
0.5	>99.9	>99.5				
0.8		>99.9	>99.5			
1.0			>99.9	>99.5		
1.5				>99.9	>99.5	
2.0					>99.9	>99.5
4.0						>99.9

Test Conditions

Equipment : Liquid Particle Counter Fluid : Refined Water
 Filtration : Single Pass Flow Rate : 10 liter/minute
 Dust : ALUMINA (PED-005 · 008)
 ACFD+LATEX Beads (PED-010 · 015 · 020 · 040)

Microbial removal performance

Grades	Biological Indicator	LRV*
005	<i>Alicyclobacillus acidoterrestris</i> (ATCC49025)	6
008	<i>Alicyclobacillus acidoterrestris</i> (ATCC49025)	5

*LRV represents Log Reduction Value (Refer to JIS K3835)

*Bacterial challenge level is more than 1×10^7 CFU/cm².

Ordering Information

Length	Product Type	Micron Rating	Gasket/O-Ring	End Cap Code	Packaging Code
2 5 0 L	-PED-	0 1 0	S	7	F
125 = 125mm 250 = 250mm 500 = 500mm 750 = 750mm		005 = 0.5 μm 008 = 0.8 μm 010 = 1.0 μm 015 = 1.5 μm 020 = 2.0 μm 040 = 4.0 μm	S = Silicone E = EPDM N = NBR V = FKM T = FEP Encapsulated FKM (for 3, 4, 7) PTFE (for F)	F = Flat Gaskets 3 = 2-222 O-Ring + Fin 4 = 2-222 O-Ring 7 = 2-226 O-Ring + Fin	A = 1pc B = 6pcs C = 10pcs F = 25pcs

End Cap Code



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

*The performance data listed in the catalog are Typical values obtained under specific conditions based on our tests.