

Product Data Sheet

SEPABEADS™ FPDA13

SEPABEADS™ FPDA13 is a porous methacrylate based anion exchange resin. It shows sufficient stability and highly porous hydrophilic nature which makes it suitable for the purification of bio-polymers.

Product

Grade Name	SEPABEADS™ FPDA13
Type	Weak Base Anion
Matrix	polymethacrylate, Highly Porous
Functional Group	Tertiary Amine
Ionic Form	Free Base

Specification

Total exchange capacity	meq/mL	0.7 min.
Water content	%	53 - 63
Particle Size Distribution on 212 µm	%	5 max.
Particle Size Distribution thr. 75 µm	%	2 max.
Effective size	mm	0.1 min.
Uniformity Coefficient	-	1.6 max.

Properties

Shipping Density	g/L	720
Mean Particle Size	µm	140
Particle Density	g/mL	1.08
Specific Surface Area	m ² /g	40
Pore Volume	mL/g	1.0
Pore Radius	Å	470

Recommended Operating Conditions

Maximum Operating Temperature	°C	130
Operating pH Range		0 - 14
Minimum Bed Depth	mm	800
Flow rate	BV/h	Loading 0.5 - 5
	BV/h	Displacement 0.5 - 2
	BV/h	Regeneration 0.5 - 2
	BV/h	Rinse 1 - 5
	Regenerant	
	Organic solvents for hydrophobic compounds	
	Bases for acidic compounds	
	Acids for basic compounds	
	Buffer solution for pH sensitive compounds	
	Water for an ionic solution	
	Hot steam for volatile compounds	
1 BV(Bed Volume)=1 m ³ /m ³ -resin		

Pore size distribution

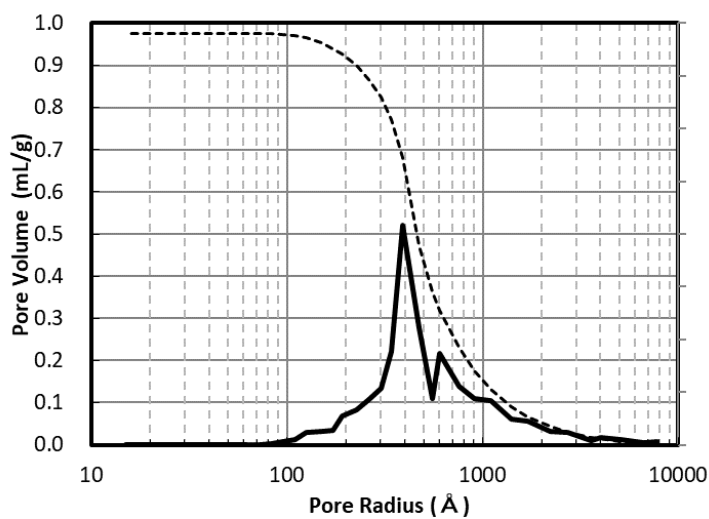


Fig. 1 Pore size distribution of FPDA13

Swelling ratio in various solvents

Methanol	1.13
Ethanol	1.09
2-Propanol	1.08
Acetone	1.10
Toluene	1.00
Acetonitrile	1.13
Water	1.00

Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of SEPABEADS™ FPDA13 resin in normal down flow operation is shown in the graph below.

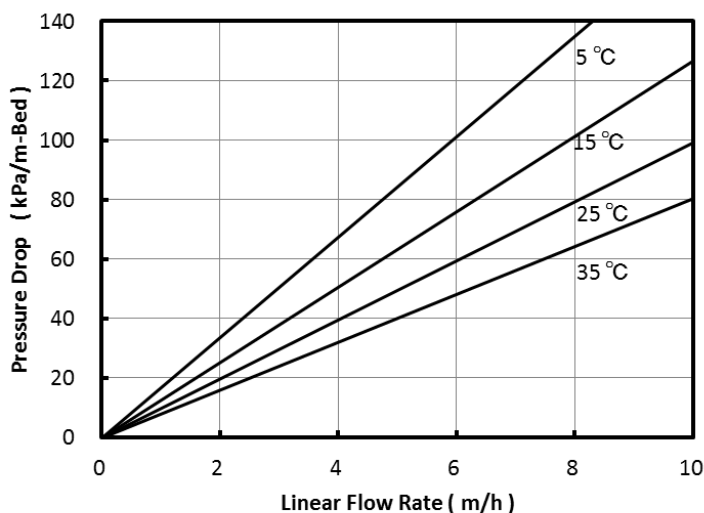


Fig. 2 Pressure Drop of FPDA13

Applications

- Purification of small peptides, oligonucleotides and proteins
- Adsorption of vitamins, antibiotics, enzymes, steroids and other substance from fermentation solutions
- Decolorization and purification of various chemicals

Notice

SEPABEADS™ is a registered trademark of Mitsubishi Chemical Corporation. The information contained herein is believed to be true and accurate, but all data, recommendations and suggestions are provided without guarantee, since the conditions of use are beyond our control and can affect the performance and properties of our products. The user is solely responsible for confirming that our product is suitable for the intended end use, and for compliance with all legal regulations and patents. Other than compliance with published Mitsubishi Chemical Corporation specifications agreed to pursuant to a signed writing during the warranty period, and except as required by law, MITSUBISHI CHEMICAL CORPORATION AND ITS AFFILIATES MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If a product is found to be defective during the warranty period, user's sole remedy and our sole obligation is, at our option, replacement of the affected product or refund of the purchase price. Except as required by law, we are not liable for any damage, harm or loss resulting from our product, whether direct, indirect, consequential, incidental or special, and irrespective of legal theory asserted, including strict liability, contract, warranty, or negligence.