

Product Data Sheet

SEPABEADS™ SP2MGS

SEPABEADS™ SP2MGS is a small and uniform particle sized grade based on DIAION™ HP2MGL. It gives higher dynamic capacity than DIAION™ HP2MGL and show strong retentivity and unique selectivity in normal phase chromatography.

SEPABEADS™ SP2MGS is characterized by:

- >> Unique chemical property and pore size distribution
- >> High chemical and physical stability
- >> Excellent batch-to-batch reproducibility
- >> Excellent pressure/flow characteristics
- >> Wide application

Physical and chemical properties

Grade Name	SEPABEADS™ SP2MGS	
Bead Form	Spherical, porous	
Matrix	Crosslinked polymethacrylate	
Chemical Structure	$ \begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \\ \quad \\ -\text{CH}_2-\text{C}-\text{CH}_2-\text{C}-\text{CH}_2- \\ \quad \\ \text{C}=\text{O} \quad \text{C}=\text{O} \\ \quad \\ \text{O} \quad \text{O} \\ \quad \\ \text{CH}_2 \quad \text{CH}_3 \\ \\ \text{---} \end{array} $	
Whole Beads Count	-	95 min.
Shipping Density*	g/L	730
Water Content	%	61 - 69
Mean Particle Size	µm	120 - 160
Uniformity Coefficient	-	1.2 max.
Particle Density*	g/mL	1.09
Specific Surface Area*	m ² /g	540
Pore Volume*	mL/g	1.2
Pore Radius*	Å	250

Note : properties with a mark "*" are referential data.

Swelling ratio in various solvents

Methanol	1.05
Ethanol	1.11
2-Propanol	1.10
Acetone	1.08
Toluene	1.03
Acetonitrile	1.09
Water	1.00



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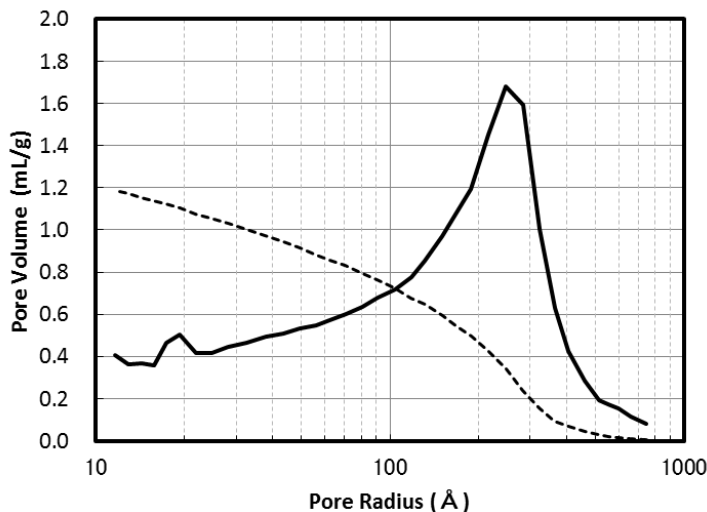
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Pore size distribution**Fig. 1 Pore size distribution of SP2MGS****Recommended Operating Conditions**

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	Rince 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

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Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of SEPABEADS™ SP2MGS resin in normal down flow operation is shown in the graph below.

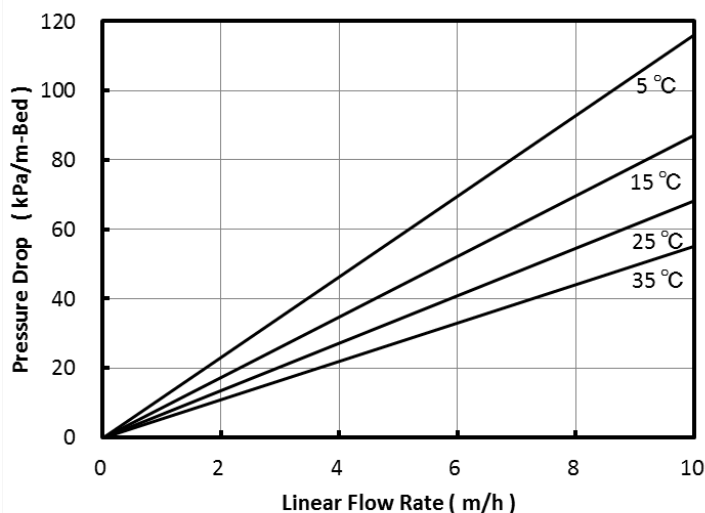


Fig. 2 Pressure Drop of SP2MGS

FDA status

SEPABEADS™ SP2MGS may be used to process food and beverage products and isolate specialized food additives as intended. Such use may be said to fully comply with the Federal Food, Drug, and Cosmetic Act, and applicable food additive regulations, including 21 CFR 177.2470 (Polyester resins, cross-linked).

Applications

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

Notice

This information are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. The application, use and processing of our products are beyond our control and therefore your own responsibility.



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