

Product Data Sheet

SEPABEADS™ SP825L

SEPABEADS™ SP825L is highly porous styrenic adsorbents. It has much larger surface area and a narrower pore size distribution than DIAION™ HP20. It offers higher capacity for small molecules. This grade is recommended for adsorption, desalting and decolorization.

Product

Grade Name	SEPABEADS™ SP825L
Type	Synthetic Adsorbent
Matrix	Styrene-DVB, Porous

Specification

Whole beads count	-	95 min.
Water content	%	52 - 62
Particle Size Distribution thr. 250 µm	%	5 max.
Effective size	mm	0.25 min.
Uniformity Coefficient	-	1.6 max.

Properties

Shipping Density	g/L	690
Particle Density	g/mL	1.01
Specific Surface Area	m ² /g	930
Pore Volume	mL/g	1.4
Pore Radius	Å	70

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



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Pore size distribution

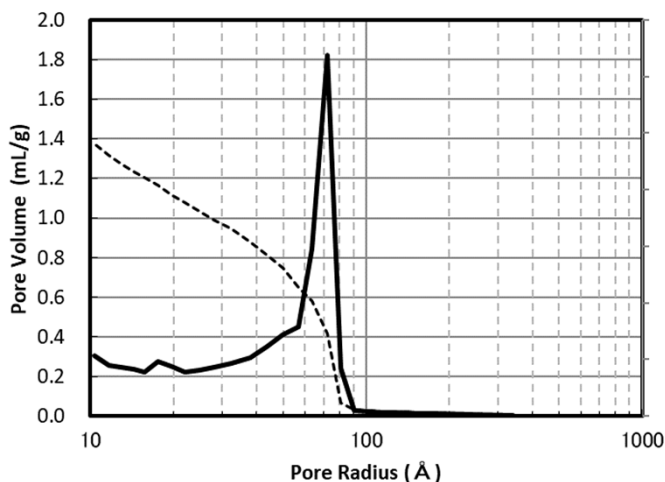


Fig. 1 Pore size distribution of SP825L

Swelling Ratio In Various Solvents

Methanol	1.15
Ethanol	1.16
2-Propanol	1.15
Acetone	1.16
Toluene	1.12
Acetonitrile	1.16
Water	1.00

Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of SEPABEADS™ SP825L resin in normal down flow operation is shown in the graphs below.

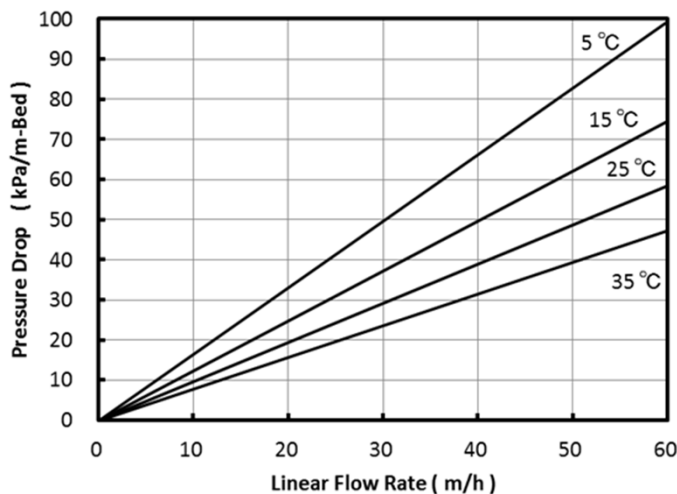


Fig. 2 Pressure Drop of SP825L



Indicative Applications

- Purification of Cephalosporin C
- 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
- Removal of phenol
- Adsorption of various perfume
- Decolorization and purification of various chemicals

Storage condition

Synthetic adsorbents are at high risk of mold growth. Accordingly, synthetic adsorbents should be stored properly. Properly stored synthetic adsorbent resins may be stored for up to one year after production before the onset of any mold growth is detected. Optimal storage is with a 20% alcohol solution such as ethanol or isopropanol. A 10% or higher concentration of salt solution, such as NaCl, is also recommended to preserve new or used resin for storage. In case salt cannot be used, a 0.01 to 0.02 N NaOH solution may be acceptable as mold cannot withstand survival at pH higher than 12. Storage at freezing temperatures should be avoided as it may cause breakage or crush certain resin particles.

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