

Product Data Sheet

SEPABEADS™ SP207

SEPABEADS™ SP207 is modified highly porous synthetic adsorbents. It has higher hydrophobicity and greater selectivity for non-polar molecules, which is derived from chemically bonded bromine to the aromatic rings, than standard aromatic adsorbents. It is suitable for upward flow and batch processes due to its high particle density.

Product

Grade Name	SEPABEADS™ SP207
Type	Synthetic Adsorbents
Matrix	Modified Styrene-DVB, Porous

Specification

Whole Bead Count	-	95 min.
Water content	%	43 - 53
Particle Size Distribution thr. 250 µm	%	10 max.
Effective size	mm	0.25 min.
Uniformity Coefficient	-	1.6 max.

Properties

Shipping Density	g/L	790
Particle Density	g/mL	1.18
Specific Surface Area	m ² /g	600
Pore Volume	mL/g	1.0
Pore Radius	Å	110

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

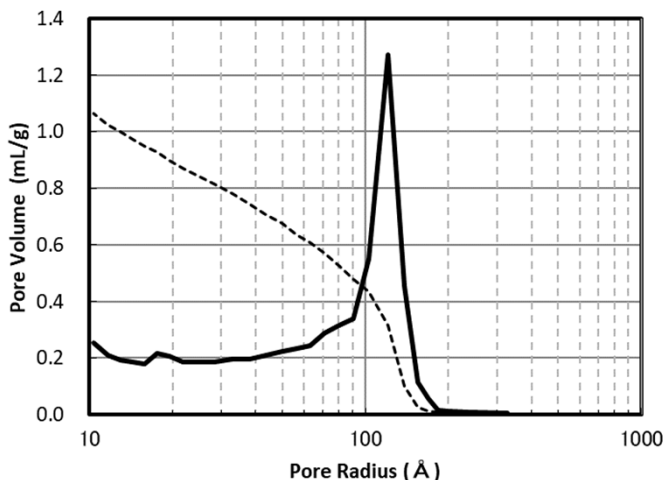


Fig. 1 Pore size distribution of SP207

Swelling Ratio In Various Solvents

Methanol	1.10
Ethanol	1.11
2-Propanol	1.12
Acetone	1.13
Toluene	1.13
Acetonitrile	1.12
Water	1.00

Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of SEPABEADS™ SP207 resin in normal down flow operation is shown in the graphs below.

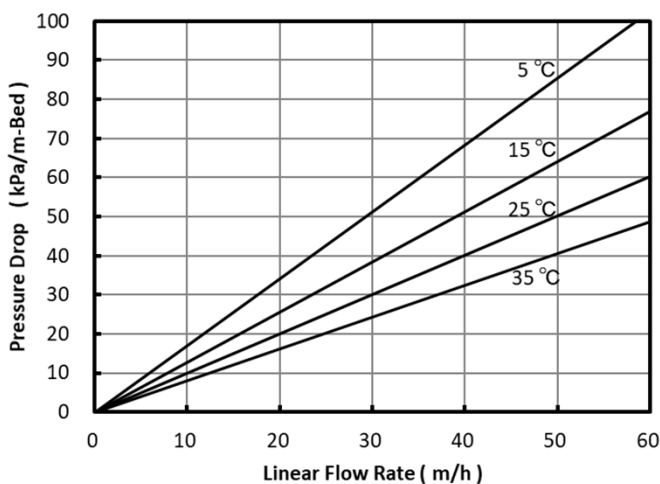


Fig. 2 Pressure Drop of SP207

Indicative 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
- 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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