# SEPABEADS<sup>™</sup> SP207

SEPABEADS™ SP207 is modified highly porous styrenic 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.

#### SEPABEADS™ SP207 is characterized by:

- >> Unique chemical structure and higher hydrophobicity
- >> High particle density >> High chemical and physical stability
- >> Excellent batch-to-batch reproducibly >> Wide application

# Physical and chemical properties

Thysical and element properties		
Grade Name		SEPABEADS <sup>™</sup> SP207
Bead form		Spherical, porous
Matrix	Modifi	ed polystyrene/divinylbenzene
Chemical Structure		$-CH_2-CH-CH_2-CH -CH-CH_2-$ Br
Whole Bead Count	-	95 min.
Shipping Density*	g/L	790
Water content	%	43 - 53
Particle Size Distribution thr. 250 μm	%	10 max.
Effective size	mm	0.25 min.
Uniformity Coefficient	-	1.6 max.
Particle Density*	g/mL	1.18
Specific Surface Area*	m²/g	600
Pore Volume*	mL/g	1.0
Pore Radius*	Å	110

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

# 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



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## Pore size distribution

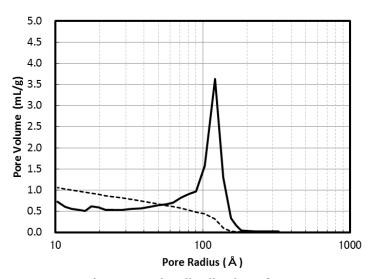


Fig. 1 Pore size distribution of SP207

#### **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<sup>TM</sup> SP207 resin in normal down flow operation is shown in the graph below.

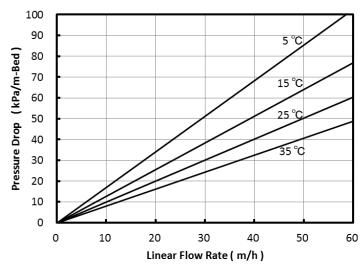


Fig. 2 Pressure Drop of SP207

## **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 chamicals

#### **Notice**

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