Product Data Sheet

# SEPABEADS™ SP207SS

SEPABEADS™ SP207SS is a small size grade based on SEPABEADS™ SP207. 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 applied to reversed phase chromatography.

## Product

| | |
|---|---|
| Grade Name | SEPABEADS™ SP207SS |
| Type | Synthetic Adsorbents |
| Matrix | Modified Styrene-DVB, Porous |

## Specification

| | | |
|---|---|---|
| Water content | % | 43 - 53 |
| Particle Size Distrubution on 150 µm | % | 15 max. |
| Particle Size Distribution 63 - 150 µm | % | 70 min. |
| Particle Size Distribution thr. 63 µm | % | 20 max. |

## Properties

| | | |
|---|---|---|
| Shipping Density | g/L | 790 |
| Particle Density | g/mL | 1.18 |
| Specific Surface Area | $m^2/g$ | 590 |
| 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 |

1 BV(Bed Volume)=1 $m^3/m^3$-resin

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## Pore size distribution

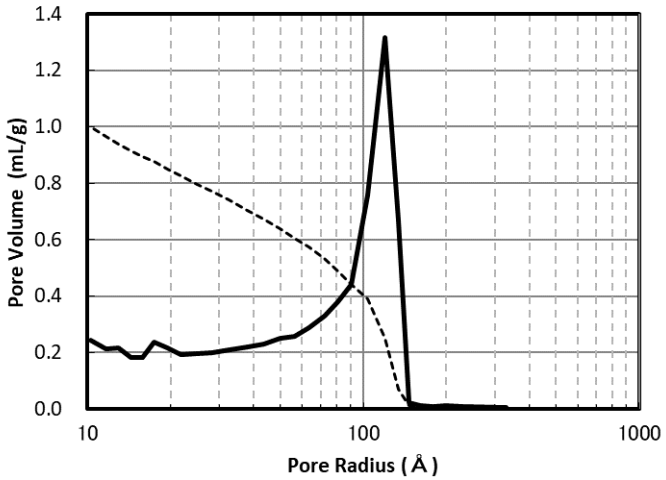


**Fig. 1 Pore size distribution of SP207SS**

## Swelling Ratio In Various Solvents

| | |
|---|---|
| Methanol | 1.11 |
| Ethanol | 1.17 |
| 2-Propanol | 1.19 |
| Acetone | 1.20 |
| Toluene | 1.19 |
| Acetonitrile | 1.20 |
| Water | 1.00 |

## Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of SEPABEADS™ SP207SS resin in normal down flow operation is shown in the graphs below.

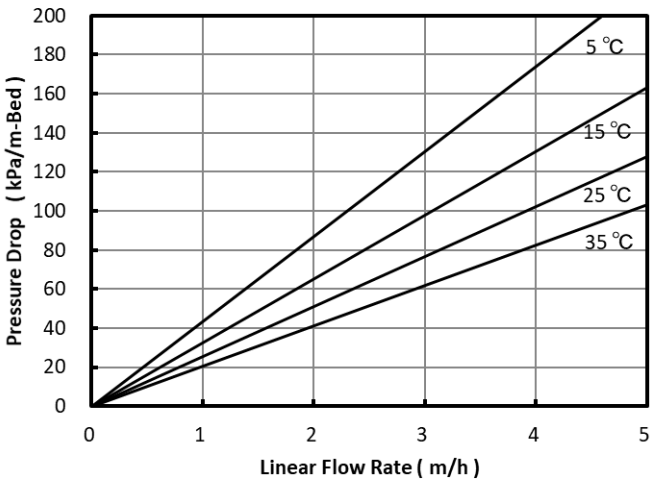


**Fig. 2 Pressure Drop of SP207SS**

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## 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.

## Notice

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