### **PRODUCT SPECIFICATION SHEET**



STRONG BASE ANION

UNIFORM PARTICLE SIZE

TYPE I ANION
POLYSTYRENIC MACROPOROUS
CHLORIDE FORM

ResinTech SBMP1-UPS is a uniform particle size chloride form type 1 macroporous strong base anion resin. The uniform beads and somewhat smaller harmonic mean size yield minimal pressure loss and better regeneration efficiency compared to Gaussian-sized resins. SBMP1-UPS is intended for use in industrial applications that require a macroporous type 1 anion resin and is recommended for countercurrently regenerated systems such as packed beds.

### **APPLICATIONS**

- Demineralization
- Packed Beds

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Macroporous
Ionic Form	Chloride
Functional Group	Trimethylamine
Physical Form	Spherical Beads
Particle Size	20 to 40 US Mesh (400 - 841 μm)
% < 50 mesh (300μm)	< 0.5% minus 50
Minimum Sphericity	95%
Uniformity Coefficient	1.25
Reversible Swelling	CI to OH 15% to 20%
Temp Limit	170°F (77°C)
Capacity (meq/mL)	1.1
Moisture Retention	50% to 63%
Shipping Weight	41 - 43 lbs/ft³ (657 - 689 g/L)
Color	White to Cream
Regenerability	Yes
Uniform Particle Size	Yes

### **PACKAGING OPTIONS**

- 500 ml samples
- 1 ft<sup>3</sup> bags
- 1 ft³ boxes
- 1 ft<sup>3</sup> drums
- 7 ft<sup>3</sup> drums
- 42 ft<sup>3</sup> supersacks

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## SBMP1-UPS

STRONG BASE ANION

# UNIFORM PARTICLE SIZE TYPE I ANION POLYSTYRENIC MACROPOROUS CHLORIDE FORM

#### **Pressure Loss** 3.0 40°F 2.5 60°F osi / ft. of Resin 2.0 100°F 1.5 1.0 0.5 0.0 5.0 15.0 20.0 0.0 10.0 gpm / sq.ft.

### **Backwash Expansion** 100 40°F 60°F Percent of Expansion 80°F 100°F 60 40 20 0 3.0 4.0 0.0 1.0 2.0 gpm / sq.ft.

### **PACKED BEDS**

ResinTech SBMP1-UPS has a very narrow particle size range. The uniformity allows a slightly smaller bead size to be used which results in faster exchange of ions, more efficient regeneration and lower leakage. SBMP1-UPS is ideal for packed beds and other types of countercurrent ion exchangers where consistent operation is important cycle after cycle. Higher void space and minimal fine mesh beads provides low pressure loss and helps prevents channeling and other distribution problems. Packed beds typically have limited freeboard (only a few inches with the resin in the swollen form).

### SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature
Chloride form
170°F
Minimum bed depth
24 inches
Backwash expansion
25 to 50 percent
Maximum pressure loss
20 psi
Operating pH range
0 to 14 SU

Regenerant Concentration

2 to 6 percent NaOH Hydroxide cycle 2 to 10 percent NaCl Salt cycle 4 to 10 lbs./cu.ft. Regenerant level 0.25 to 1.0 gpm/cu.ft. Regenerant flow rate Regenerant contact time >40 minutes Displacement flow rate Same as dilution water Displacement volume 10 to 15 gallons/cu.ft. Rinse flow rate Same as service flow Rinse volume 35 to 60 gallons/cu.ft. Service flow rate 1 to 10 gpm/cu.ft.

Note: These guidelines describe average low risk operating conditions. They are not intended to be absolute minimums or maximums.

For operation outside these guidelines, contact ResinTech Technical Support

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