WBMP-UPS

Weak base anion resin, styrene/DVB macroporous, uniform particle size, free base form

ResinTech WBMP-UPS is a uniform particle size styrenic macroporous weak base anion resin in the free base form. It has high capacity, moderate strong base functionality, excellent stability, a very low rinse requirement, and can be efficiently regenerated with a variety of alkaline chemicals, or with waste caustic left over from regeneration of strong base anion resin. WBMP-UPS is intended for use in multibed demineralization and other acid absorption applications.

FEATURES & BENEFITS

- High Operating Capacity
- Resistant To Organic Fouling
- Superior Physical Stability
- Complies With US FDA Regulations

APPLICATIONS

- pH Correction of Acidic Waters
- Cartridge Applications
- Portable Exchange Deionization (PEDI)
- Acid Adsorption
- Demineralization / DI

Kosher Certified

Halal Certified

Conforms to §21CFR173.25 of the USFDA Food Additives Regulations

RESINTECH® INC.
INNOVATIONS IN ION EXCHANGE

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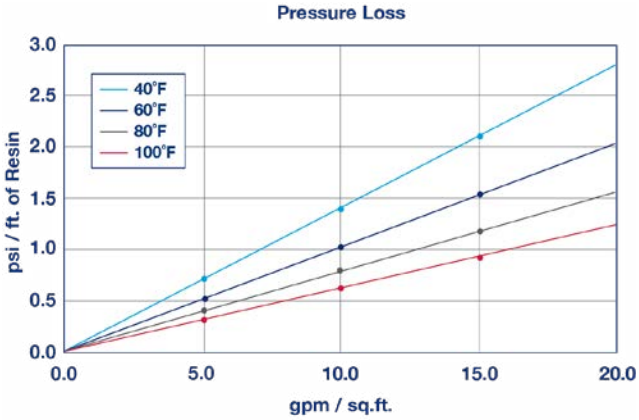
WBMP-UPS

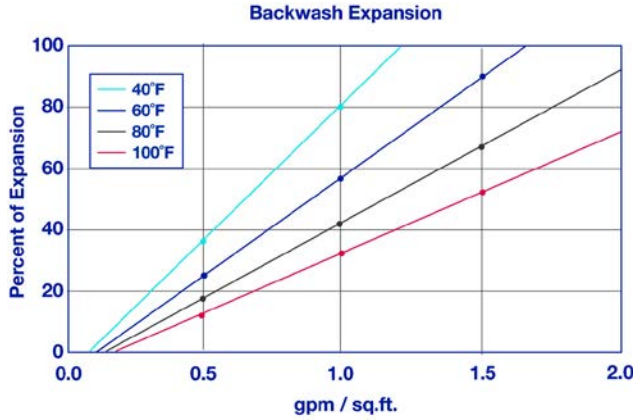
Polymer Matrix	Styrene/DVB
Polymer Type	Macroporous
Ionic Form (as shipped)	Free Base (FB)
Functional Group	Dimethylamine
Physical Form	Spherical Beads
Particle Size US Mesh (µm)	20 (841) to 40 (400)
< 50 mesh (300 µm) %	< 0.5
Minimum Sphericity (%)	95
Reversible Swelling	10 to 15% (Free Base → Cl)
Uniformity	UPS
Uniformity Coefficient	1.25
Capacity (meq/mL)	1.45
Moisture Retention (%)	53 to 60
Shipping Weight	39 - 41 lbs/cu.ft. (625 - 657 g/L)
Color	White to Tan

PRESSURE LOSS



The graph above shows the expected pressure loss of ResinTech WBMP-UPS per foot of bed depth as a function of flow rate at various temperatures.

BACKWASH EXPANSION



The graph above shows the expansion characteristics of ResinTech WBMP-UPS as a function of flow rate at various temperatures.

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	212°F (100°C)
Minimum Bed Depth	24 in. (61.0 cm)
Maximum Pressure Loss	20 psi (138 kPa)
Backwash Expansion (%)	25 - 50
Operating pH Range	0 to 9.0
Flow Rate	
Working Service	1-4 gpm/cu.ft. (8-32 BV/h)

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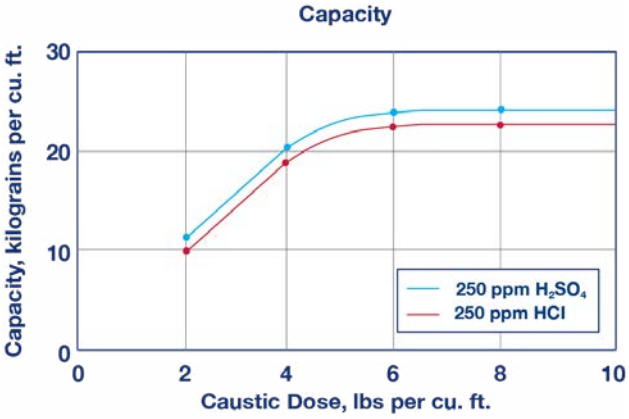
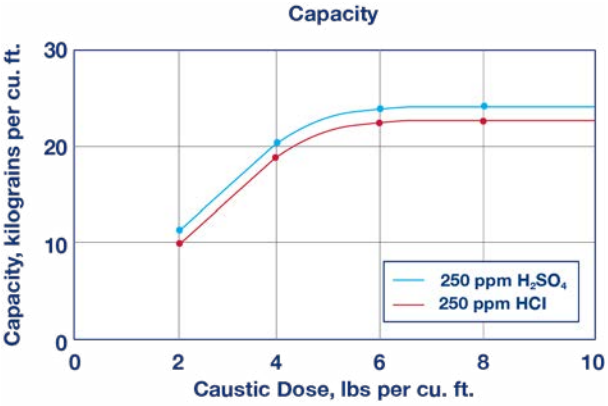
CAPACITY GRAPH 1



Capacity and leakage data are based on the following: 2:1 Ca:Mg ratio, 500 ppm TDS as CaCO3, 0.2% hardness in the salt and 10% brine concentration applied co-currently through the resin over 30 minutes. No engineering downgrade has been applied.

DEMINERALIZER

ResinTech WBMP-UPS can be used in a two bed system following a strong acid cation unit (such as CG8-H) where weakly acidic anions such as silica and carbon dioxide do not have to be completely removed. Where complete removal of all anions is required, WBMP-UPS can be placed ahead of a strong base anion unit (such as SBG1P-OH). WBMP-UPS will efficiently remove strong acids such as chlorides, sulfates and nitrates, leaving silica and carbon dioxide to be removed by the strong base resin. WBMP-UPS is easily regenerated with modest caustic dosages or with waste caustic left over from the strong base anion unit.



Weak base resins are temperature and flow sensitive. The chart is based on 2 gpm/cu. ft. flow rate, temperature of 70℉, a bed depth of 30 inches, and an endpoint of 20 kiloohms resistivity (50 uS/cm). No engineering downgrade has been applied.

LAYERED BEDS

ResinTech WBMP-UPS has a very narrow particle size range. The uniformity and absence of very small beads makes WBMP-UPS ideal for layered beds where it is important that the two resin layers stay separate from each other. For layered bed applications WBMP-UPS should be paired with SBG1P-UPS. The weak base layer is typically about 30% of the total bed volume. Layered beds are normally countercurrently regenerated.

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PACKED BEDS

ResinTech WBMP-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. WBMP-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).

REGENERATION DETAILS

Hydroxide Cycle (NaOH)	1 to 6	Displacement Flow Rate	Same as dilution water
Regenerant Level	3-6 lbs/cu.ft. (48.1-96.1 g/L)	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Flow Rate	0.5-1.0 gpm/cu.ft. (4-8 BV/h)	Rinse Flow Rate	Same as service flow
Regenerant Contact Time	>30 minutes	Rinse Volume	35-60 gals/cu.ft. (5-8 BV)

PACKAGING

Standard

7 cu.ft. Drum | 42 cu.ft. Supersack
1 cu.ft. Bag | 5 cu.ft. Drum

Metric

25L Bag | 140L Drum

Minimum Order Volume: 210 (cu.ft.)

SAFETY DATA SHEETS (SDS)

Safety Data Sheets (SDS) are available for all products on the ResinTech website. They contain important health and safety information that may be needed to protect your employees and customers from any known health and safety hazards associated with our products. We recommend that you secure and study the pertinent MSDS for our products and any other products being used.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith.
However we do not make any guarantee or warranty. We caution against using these products in an unsafe manner or in violation of any patents; further we assume no liability for the consequences of any such actions.

Safety Data Sheets (SDS) are available at resintech.com

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