

# WBMP-UC1

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

ResinTech WBMP-UC1 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-UC1 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

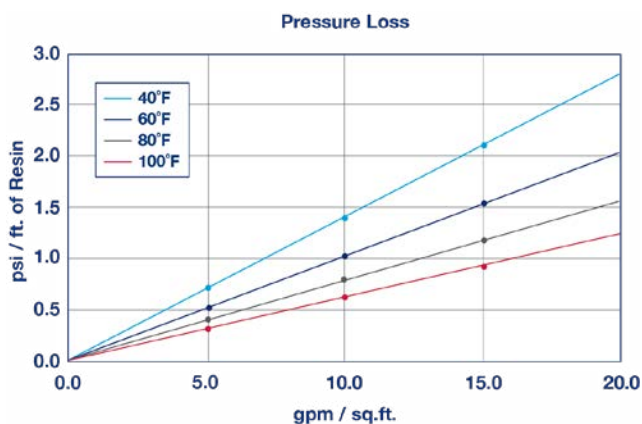
Halal Certified

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

WBMP-UC1

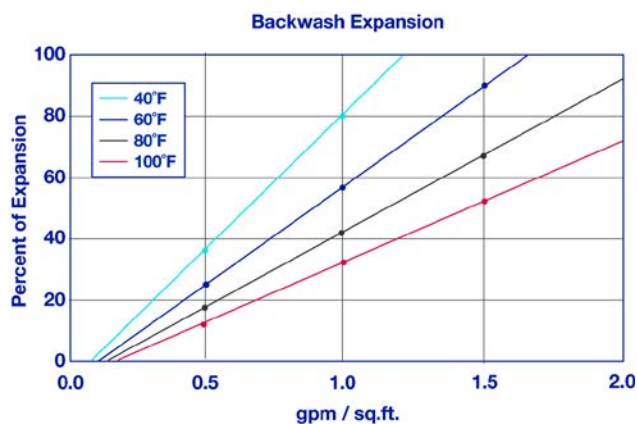
Polymer Matrix	Styrene/DVB	Reversible Swelling	10 to 15% (Free Base → Cl)
Polymer Type	Macroporous	Uniformity	UPS
Ionic Form (as shipped)	Free Base (FB)	Uniformity Coefficient	1.10
Functional Group	Dimethylamine	Capacity (meq/mL)	1.45
Physical Form	Spherical Beads	Moisture Retention (%)	53 to 60
Particle Size US Mesh (µm)	20 (841) to 40 (400)	Shipping Weight	39 - 41 lbs/cu.ft. (625 - 657 g/L)
< 50 mesh (300 µm) %	< 0.5	Color	White to Tan
Minimum Sphericity (%)	95		

**PRESSURE LOSS**



The graph above shows the expected pressure loss of ResinTech WBMP-UC1 per foot of bed depth as a function of flow rate at various temperatures.

**BACKWASH EXPANSION**



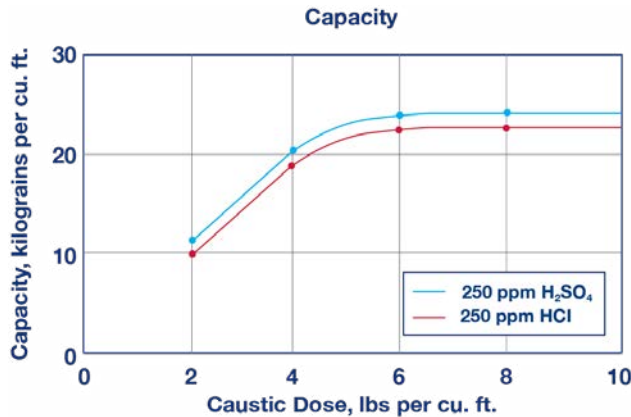
The graph above shows the expansion characteristics of ResinTech WBMP-UC1 as a function of flow rate at various temperatures.

**SUGGESTED OPERATING CONDITIONS**

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



CAPACITY GRAPH 1



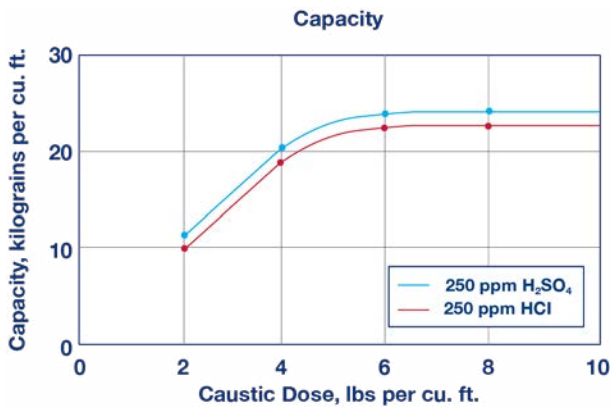
Capacity and leakage data are based on the following: 2:1 Ca:Mg ratio, 500 ppm TDS as CaCO<sub>3</sub>, 0.2% hardness in the salt and 10% brine concentration applied co-currently through the resin over 30 minutes. No engineering downgrade has been applied.

**DEMINERALIZER**

ResinTech WBMP-UC1 can be used in a two bed system following a strong acid cation unit (such as CG8-H-UC1) 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-UC1 can be placed ahead of a strong base anion unit (such as SBG1P-OH-UC1). WBMP-UC1 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-UC1 is easily regenerated with modest caustic dosages or with waste caustic left over from the strong base anion unit.

**LAYERED BEDS**

ResinTech WBMP-UC1 has a very narrow particle size range. The uniformity and absence of very small beads makes WBMP-UC1 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.



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

**PACKED BEDS**

ResinTech WBMP-UC1 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-UC1 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](http://resintech.com)

