PRODUCT SPECIFICATION SHEET



POLYSTYRENIC MACROPOROUS FREE BASE FORM

ResinTech WBMP is a styrenic macroporous weak base anion resin in the free base form. It has good 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 is intended for use in multibed demineralization and other acid absorption applications.

APPLICATIONS

- Demineralization
- Organics Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS	
Polymer Matrix	Styrenic Macroporous
Ionic Form	Free Base
Functional Group	Dimethylamine
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 1190 μm)
% < 50 mesh (300μm)	< 1%
Minimum Sphericity	95%
Uniformity Coefficient	1.6
Reversible Swelling	Free Base to HCl 15% to 25%
Temp Limit	212°F (100°C)
Capacity (meq/mL)	1.45
Moisture Retention	53% to 60%
Shipping Weight	39 - 41 lbs/ft³ (625 - 657 g/L)
Color	White to Tan
Regenerability	Yes

CERTIFICATIONS

- Halal Certified
- Kosher Certified
- FDA Compliance*

PACKAGING OPTIONS

- 500 ml samples
- 1 ft³ bags
- 1 ft³ boxes
- 1 ft³ drums
- 7 ft³ drums
- 42 ft³ supersacks

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^{*} Paragraph 21CFR173.25 of the Food Additives Regulations of the US F



POLYSTYRENIC MACROPOROUS FREE BASE FORM

Pressure Loss 3.0 40°F 2.5 60°F 80°F psi / ft. of Resin 100°F 2.0 1.5 1.0 0.5 0.0 5.0 15.0 20.0 0.0 10.0 gpm / sq.ft.

Backwash Expansion 100 80 -40°F -60°F -100°F -100°

DEMINERALIZER

ResinTech WBMP 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 can be placed ahead of a strong base anion unit (such as SBG1P-OH). WBMP 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 is easily regenerated with modest caustic dosages or with waste caustic left over from the strong base anion unit.

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ORGANIC REMOVAL

ResinTech WBMP is easily regenerated with sodium hydroxide, allowing the removal of organic acid anions as part of demineralization process utilizing an upstream hydrogen form strong acid cation exchanger. The use of WBMP in front of a hydroxide form strong base anion exchanger can help reduce organic fouling of the strong base anion resin, increasing run lengths between regenerations and reducing the rinse volume required before return to service. Because free base form weak base anion resins are only able to absorb acids, the feedwater must be significantly acidic or the resin must be preconverted into the acid sulfate or acid chloride form prior to use.

SUGGESTED OPERATING CONDITIONS

Maximum continuous temperature

Free Base form	212°F
Minimum bed depth	24 inches
Backwash expansion	25 to 50 percent
Maximum pressure loss	20 psi
Operating pH range	<9 SU
Regenerant Concentration	
Hydroxide cycle	1 to 6 percent NaOH
Regenerant level	3 to 6 lbs./cu.ft.
Regenerant flow rate.	0.5 to 1.0 gpm/cu.ft.
Regenerant contact time	>30 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 4 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

