

MAGNA WBACR

WEAK BASE ANION

ACRYLIC GEL
FREE BASE FORM

ResinTech WBACR is an acrylic gel weak base anion resin in the free base form. WBACR has exceptionally high capacity weak base resin with almost no strong base functionality. WBACR is intended for use in single cycle exhaustions such as cartridges, waste treatment applications, systems where release of hydroxides is problematic, and systems that can accommodate a relatively long rinse requirement.

APPLICATIONS

- Demineralization
- Organics Removal

TYPICAL PROPERTIES & PHYSICAL CHARACTERISTICS

Polymer Matrix	Acrylic Gel
Ionic Form	Free Base
Functional Group	Tertiary Amine
Physical Form	Spherical Beads
Particle Size	16 to 50 US Mesh (297 - 1190 µm)
% < 50 mesh (300µm)	< 1%
Minimum Sphericity	93%
Uniformity Coefficient	1.6
Reversible Swelling	Free Base to HCl 10% to 15%
Temp Limit	212°F (100°C)
Capacity (meq/mL)	1.4
Moisture Retention	56% to 64%
Shipping Weight	43 - 45 lbs/ft ³ (689 - 721 g/L)
Color	Off White
Regenerability	Yes

PACKAGING OPTIONS

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

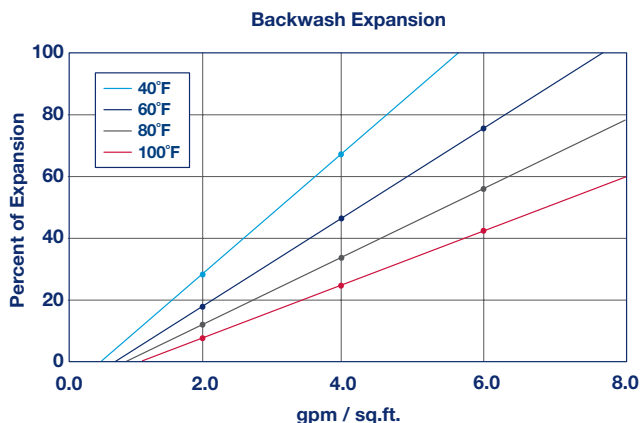
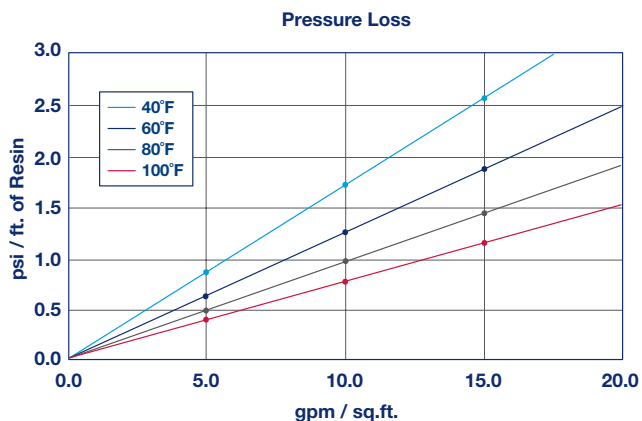
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DEMINERALIZER

ResinTech WBACR 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, WBACR can be placed ahead of a strong base anion unit (such as SBG1P-OH). WBACR will efficiently remove strong acids such as chlorides, sulfates and nitrates, leaving silica and carbon dioxide to be removed by the strong base resin. WBACR is easily regenerated with modest caustic dosages or with waste caustic left over from the strong base anion unit.

ORGANIC REMOVAL

ResinTech WBACR is easily regenerated with sodium hydroxide, allowing the removal of organic acid anions as part of a demineralization process utilizing an upstream hydrogen form strong acid cation exchanger. The use of WBACR 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. 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	212°F
Free Base form	
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

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