WACG

Grade: Standard

Weak acid cation resin, acrylic/DVB gel, hydrogen form

ResinTech WACG is a hydrogen form gel weak acid cation resin. It has exceptionally high capacity and can be regenerated at close to 100% acid efficiency but is limited to use in alkaline waters with pH greater than 7. WACG is intended for hardness removal from waters that contain significant alkalinity and for demineralization where the use of a weak acid cation resin is required.

FEATURES & BENEFITS

- High capacity
- High regeneration efficiency
- Superior physical stability
- Controlled particle size
- Complies with US FDA regulations

APPLICATIONS

- Dealkalizer
- Lead Removal
- Temporary Hardness Removal

PHYSICAL PROPERTIES

Polymer Matrix	Acrylic/DVB
Polymer Type	Gel
Ionic Form (as shipped)	Hydrogen (H^+)
Functional Group	Carboxylic Acid
Physical Form	Spherical Beads
Uniformity Coefficient	1.60
Particle Size	16-50 US mesh (297-1190µm)
< 50 mesh (300 µm) %	< 1%
Minimum Sphericity (%)	93
Reversible Swelling	80 to 100% (H → Na)
Capacity (meq/mL)	4.00
Moisture Retention (%)	43 to 60
Shipping Weight	47 - 49 lbs/cu.ft. (753 - 785 g/L)
Color	White to Cream
Regenerable	Regenerable

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	212°F (100°C)	Flow Rate	
Minimum Bed Depth	24 in. (61.0 cm)	Working Service	1-5 gpm/cu.ft. (8-40 BV/h)

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

ResinTech Inc.
INNOVATIONS IN ION EXCHANGE

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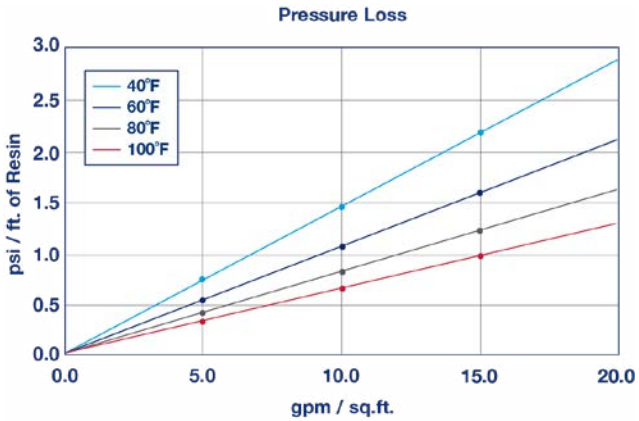
REGENERATION DETAILS

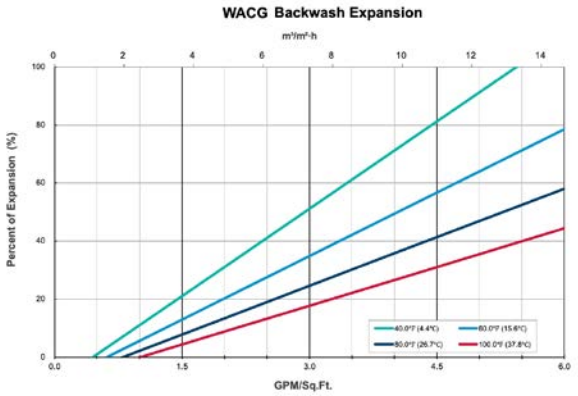
Hydrogen Cycle (HCl)	1 to 5%	Displacement Volume	10-15 gals/cu.ft. (1-2 BV)
Regenerant Flow Rate	0.3-1.5 gpm/cu.ft. (2-12 BV/h)	Rinse Flow Rate	Same as service flow
Regenerant Contact Time	> 30 minutes	Rinse Volume	10-15 gals/cu.ft. (1-2 BV)
Displacement Flow Rate	Same as dilution water		

PRESSURE LOSS



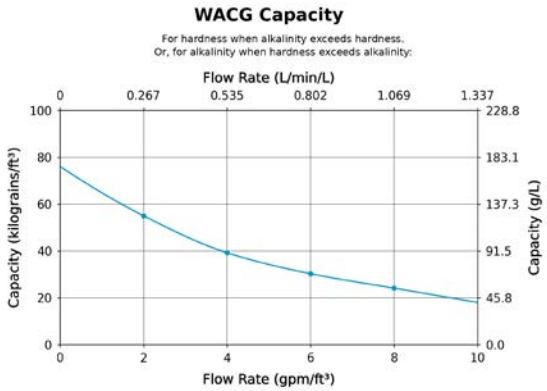
The graph above shows the expected pressure loss of ResinTech WACG per foot of bed depth as a function of flow rate at various temperatures.

BACKWASH EXPANSION



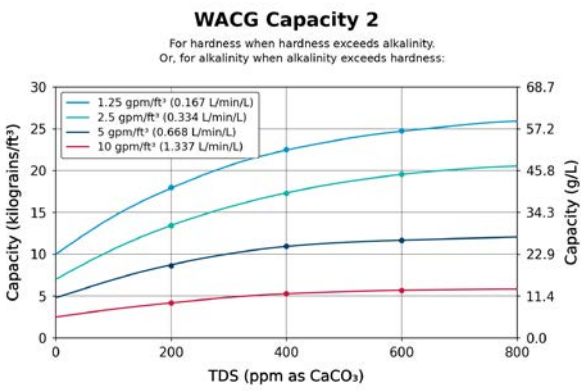
The graph above shows the expansion characteristics of ResinTech WACG as a function of flow rate at various temperatures.

CAPACITY



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.

CAPACITY 2



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.

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SOFTENER AND DEALKALIZER

ResinTech **WACG** removes hardness from water by neutralizing alkalinity from HCO_3 to CO_2. The carbon dioxide can then be removed in a degassifier. For complete removal of hardness, a strong acid cation type softener is needed. For complete conversion of HCO_3 alkalinity to CO_2, a hydrogen form cation may be needed.

HIGH TDS SOFTENING

ResinTech **WACG** can be operated as a softener in the sodium cycle. Selectivity for hardness compared to sodium is 5 to 10 times higher than conventional softening resins. Regeneration requires acid followed by caustic, salt can not be used. Sodium form weak acid resins can be used to soften high TDS waters up to approximately 50,000 ppm.

CERTIFICATIONS

Meets NSF/ANSI/CAN 61
Meets NSF/ANSI/CAN 372
REACH Registered
Kosher Certified

PACKAGING

Standard

1 cu.ft. Bag | 42 cu.ft. Supersack
25 L bag | 1000 L Supersack

Metric

5 cu.ft. Drum | 7 cu.ft. Drum
140L Drum | 200L Drum

Shipping Weight

47 - 49 lbs/cu.ft. (753 - 785 g/L)

Minimum Order Volume: 210 (cu.ft.)

MATERIAL SAFETY DATA SHEETS (MSDS)

Material Safety Data Sheets (MSDS) 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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