



Graver Technologies

Product Specification

GRAVEX® GR-3-16 US NG ULC Nuclear Grade Ultra Low Cl Hydrogen/Hydroxide

Spec No.	GTS-316-US-NG-ULC
Rev No.	2
Date	February 19, 2020

Properties	Limits
Resin Type	Strongly Acidic Gel Cation Exchange Resin Strongly Basic Type 1 Gel Anion Exchange Resin
Functionality	Sulfonic Acid / Quaternary Ammonium
Matrix	Styrene Divinylbenzene
Cation:Anion Ratio	1:1 Equivalents
Total Exchange Capacity	2.5 meq/mL (Cation) WRC - 37-43% (min) 1.2 meq/mL (Anion) WRC - 54-60% (min)
Ionic Conversion	99% Hydrogen (min) 97% Hydroxide (min) 0.05% Chloride (max) 0.1% Sulfate (max)
Particle Size	1.1 Uniformity Coefficient (max) 1% > 1,180 µm (max) 0.1% < 300 µm (max) Cation - 525 ± 50 µm mean diameter Anion - 620 ± 50 µm mean diameter
Friability	Cation - 600 g/bead avg.; Anion - 600 g/bead avg (min) Cation & Anion - 95% > 200 g/bead (max)
Whole Uncracked Bead	95% (min)
Rinseable Organics - Anion	
Post UV Chloride	20 ppb (max)
Post UV Sulfate	50 ppb (max)
Impurities (mg/dry kg)	
Aluminum	10 (max)
Calcium	10 (max)
Cobalt	5 (max)
Copper	5 (max)
Iron	20 (max)
Lead	10 (max)
Magnesium	10 (max)
Mercury	10 (max)
Potassium	20 (max)
Sodium	20 (max)
Total Chloride	250 (max)
Total Silica	10 (max)