



Graver Technologies

Product Specification

GRAVEX® GR-2-0 US NG UPS Nuclear Grade Hydrogen

Spec No.	GTS-20-US-NG
Rev No.	4
Date	November 2, 2020

Properties

Resin Type
Functionality
Matrix
Physical Appearance
Total Exchange Capacity, (eq/L)
Water Retention Capacity, (%)
Ionic Conversion, (%)
Particle Size
 Mean Particle Diameter, (μm)
 Uniformity Coefficient
 $> 1,180 \mu\text{m}$, (%)
 $< 300 \mu\text{m}$, (%)
Friability
 Average g/bead
 % > 200 g/bead
Whole Uncracked Beads, (%)
Impurities, (mg/dry kg)
 Aluminum
 Calcium
 Cobalt
 Copper
 Iron
 Lead
 Magnesium
 Mercury
 Potassium
 Sodium

Limits

Strongly Acidic Gel Cation Exchange Resin
Sulfonic Acid
Styrene Divinylbenzene
Amber to dark translucent spherical beads
 ≥ 2.0
45 - 51
 $\geq 99\%$ Hydrogen
650 +/- 50 μm
 ≤ 1.2
 ≤ 2.0
 ≤ 0.1
 ≥ 600
 ≥ 95
 ≥ 95
 ≤ 10
 ≤ 50
 ≤ 5
 ≤ 5
 ≤ 40
 ≤ 10
 ≤ 10
 ≤ 20
 ≤ 20
 ≤ 20

Typical Properties

Swelling Na to H, % ~ 8
Particle Density, (g/mL) ~ 1.22
Shipping Weight, (g/L) ~ 800
Operating Temperature °C, (max) 150 ; Recommend ~ 130 max for best operation