



Graver Technologies

## Product Specification

### GRAVEX® GR-2-0 US DM UPS Demineralizer Grade Hydrogen

|          |                 |
|----------|-----------------|
| Spec No. | GTS-20-US-DM    |
| Rev No.  | 0               |
| Date     | August 25, 2017 |

#### Properties

#### Limits

|                          |  |                |
|--------------------------|--|----------------|
| Resin Type               | Strongly Acidic Gel Cation Exchange Resin      |                |
| Functionality            | Sulfonic Acid                                  |                |
| Matrix                   | Styrene Divinylbenzene                         |                |
| Total Exchange Capacity  | 1.9 meq/mL                                     | (min)          |
| Water Retention Capacity | 45 - 51%                                       |                |
| Ionic Conversion         | 99% Hydrogen                                   | (min)          |
| Particle Size            | 1.1 Uniformity Coefficient<br>650 ± 50 µm mean | (max)          |
| Friability               | 500 g/bead, avg<br>95% >200 g/bead             | (min)<br>(min) |
| Whole Uncracked Beads    | 95%  | (min)          |

#### Typical Properties

|   |   |
|---|---|
| Swelling (Na <sup>+</sup> to H <sup>+</sup> ) | 8%  |
| Particle Density                              | 1.22 g/mL                                       |
| Shipping Weight                               | 800 g/mL (50 lbs/ft <sup>3</sup> )              |
| Operating Temperature                         | 130°C (265°F)                                   |
| pH Range                                      | 0-14  |
| Bed Depth, min                                | 800 mm (2.6 ft)                                 |
| Service Rate                                  | 5-60 m/h (2-24 gpm/ft <sup>2</sup> )            |
| Regenerant                                    | 2-10% H <sub>2</sub> SO <sub>4</sub> ; 4-8% HCl |
| Regeneration Rate                             | 2-10 m/h (0.8-4 gpm/ft <sup>2</sup> )           |
| Total Rinse Requirement                       | 2-10 BV   |