

# QuantumPure™

Product Data Sheet

## WBA IX Resins with Uniform Distribution

LG QuantumPure™ offers a comprehensive range of high-performance Ion Exchange (IX) resins, designed to meet a wide range of water treatment needs from deionization and softening to selective ion removal. Produced using state-of-the-art manufacturing processes, LG QuantumPure™ IX resins deliver consistent quality, excellent chemical resistance, and extended service life, reducing the need for frequent replacements and maintenance.



### Key Features

- Uniform particle size (uniformity coefficient is below 1.2)
- High exchange capacity
- Excellent physical properties
- Good chemical durability



### Key Benefits

- Highly efficient exchange capacity
- Longer service cycle
- High regeneration efficiency
- Lower use of regeneration reagent



### Key Applications

- Mineral acid removal (ex. HCl, H<sub>2</sub>SO<sub>4</sub>, HNO<sub>3</sub>)
- Layered bed system with SBA

## Physical and Chemical Properties

| Product Name                            | QuantumPure™ UWA-80            |
|-----------------------------------------|--------------------------------|
| Matrix                                  | Styrene-divinylbenzene, Porous |
| Functional Group                        | Tertiary Amine                 |
| Ionic Form                              | Free Base                      |
| Shipping Weight (g/l)*                  | 615                            |
| Specific Gravity*                       | 1.04                           |
| Average Diameter (µm)                   | 500±100                        |
| Total Capacity, min. (eq/l)             | 1.6                            |
| Moisture Retention (%)                  | 55–60                          |
| Uniformity Coefficient                  | ≤1.2                           |
| Swelling Rate (FB→Cl <sup>-</sup> , %)* | 23                             |

### Regeneration Specifications

|                        |                                 |
|------------------------|---------------------------------|
| Regenerant             | NaOH                            |
| Concentration (%)      | 2–8                             |
| Level*                 | 110–120% of Stoichiometric Load |
| Flow Rate (m/h)        | 2–8                             |
| Rinse Requirement (BV) | 2–8                             |

### Recommended Operating Conditions

|                          |          |
|--------------------------|----------|
| Operating Temp (°C) [°F] | 60 [140] |
| Min. Bed Depth (mm)      | 700      |
| pH Range                 | 0–9      |
| Service Flow Rate (m/h)  | 5–60     |

### Feed Water Limitations

|                       |                   |
|-----------------------|-------------------|
| Free Chlorine         | Not Traceable     |
| Turbidity             | Less than 2 NTU   |
| Iron and Heavy Metals | Less than 0.1 ppm |

\*The values specified are for reference only and does not guarantee performance.

The product performance is expressly conditioned on Buyer's storing, installing, operating, and maintaining Product in accordance with industry accepted good practices and Seller's written instructions provided in the Seller's Technical Manual may be viewed and downloaded at [www.lgwatersolutions.com](http://www.lgwatersolutions.com) information and data contained herein are Deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability for results obtained or damages incurred

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