

# QuantumPure™

Product Data Sheet

## Premium SAC IX Resins with Uniform Particle Size

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 1.1)
- High reactivity and strong ion adsorption
- Operable in all pH ranges
- Excellent physical durability



### Key Benefits

- Highly efficient exchange capacity
- Longer service cycle
- Broader range of operation
- Minimum pressure drop



### Key Applications

- Selective metal ion removal
- Demineralization by cation removal
- Condensate polishing
- Mixed bed system with SBA

## Physical and Chemical Properties

Product Name	QuantumPure™ UC-08	QuantumPure™ UC-08 H	QuantumPure™ UC-10	QuantumPure™ UC-10 H
Matrix	Styrene-divinylbenzene, Gel			
Functional Group	Sulfonic Acid			
Ionic Form	Na <sup>+</sup>	H <sup>+</sup>	Na <sup>+</sup>	H <sup>+</sup>
Shipping Weight (g/l)*	840	800	830	800
Specific Gravity*	1.28	1.20	1.32	1.22
Average Diameter (µm)	600±50	620±50	650±50	660±50
Total Capacity (eq/l)	2.00	1.80	2.20	2.00
Moisture Retention (%)	43–49	50–56	38–44	45–51
Uniformity Coefficient	≤1.1	≤1.1	≤1.1	≤1.1
Swelling Rate (Na <sup>+</sup> →H <sup>+</sup> , %)	9	9	8	8

## Regeneration Specifications

Regenerant	HCl H <sub>2</sub> SO <sub>4</sub> NaCl	HCl H <sub>2</sub> SO <sub>4</sub> NaCl	HCl H <sub>2</sub> SO <sub>4</sub>	HCl H <sub>2</sub> SO <sub>4</sub>
Concentration (%)	HCl (4–10) H <sub>2</sub> SO <sub>4</sub> (1–4) NaCl (8–12)	HCl (4–10) H <sub>2</sub> SO <sub>4</sub> (1–4) NaCl (8–12)	HCl (4–10) H <sub>2</sub> SO <sub>4</sub> (1–4)	HCl (4–10) H <sub>2</sub> SO <sub>4</sub> (1–4)
Level (g/l)	50–200	50–200	50–200	50–200
Flow Rate (m/h)	2–10	2–10	2–10	2–10
Rinse Requirement (BV)	2–6	2–6	2–6	2–6

## Recommended Operating Conditions

Operating Temp (°C) [°F]	120 [248]	120 [248]	120 [248]	120 [248]
Min. Bed Depth (mm)	800	800	800	800
pH Range	0–14	0–14	0–14	0–14
Service Flow Rate (m/h)	5–60	5–60	5–120	5–120

## 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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