

# QuantumPure™

Product Data Sheet

## Premium SBA 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 properties



### Key Benefits

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



### Key Applications

- Silica and organic removal
- Demineralization by anion removal
- Condensate polishing
- Mixed bed system with SAC

## Physical and Chemical Properties

Product Name	QuantumPure™ UA-10	QuantumPure™ UA-10 OH	QuantumPure™ UA-12	QuantumPure™ UA-12 OH	QuantumPure™ UA-20
Matrix	Styrene-divinylbenzene, Gel				
Functional Group	Type 1 (Trimethylammonium)			Type 2 (Dimethylethanolammonium)	
Ionic Form	Cl <sup>-</sup>	OH <sup>-</sup>	Cl <sup>-</sup>	Na <sup>+</sup>	Cl <sup>-</sup>
Shipping Weight (g/l)*	670	655	670	660	690
Specific Gravity*	1.08	1.07	1.08	1.07	1.11
Average Diameter (µm)	550±50	590±50	575±50	620±50	575±50
Total Capacity, min. (eq/l)	1.35	1.10	1.30	1.00	1.30
Moisture Retention (%)	43–49	59–65	49–55	62–70	45–51
Uniformity Coefficient	≤1.1	≤1.1	≤1.1	≤1.1	≤1.1
Swelling Rate (Cl <sup>-</sup> →OH <sup>-</sup> , %)*	23	23	24	24	14

## Regeneration Specifications

Regenerant	NaOH	NaOH	NaOH	NaOH	NaOH
Concentration (%)	2–8	2–8	2–8	2–8	2–8
Level (g/l)	50–150	50–150	50–150	50–150	50–150
Flow Rate (m/h)	2–8	2–8	2–8	2–8	2–8
Rinse Requirement (BV)	2–8	2–8	2–6	2–6	2–8

## Recommended Operating Conditions

Operating Temp (°C) [°F]	OH <sup>-</sup> : 60 [140] Cl <sup>-</sup> : 80 [176]	OH <sup>-</sup> : 60 [140] Cl <sup>-</sup> : 80 [176]	OH <sup>-</sup> : 60 [140] Cl <sup>-</sup> : 80 [176]	OH <sup>-</sup> : 60 [140] Cl <sup>-</sup> : 80 [176]	OH <sup>-</sup> : 40 [104] Cl <sup>-</sup> : 60 [140]
Min. Bed Depth (mm)	800	800	800	800	800
pH Range	0–14	0–14	0–14	0–14	0–14
Service Flow Rate (m/h)	5–120	5–150	5–60	5–60	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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