

QuantumPure™

Product Data Sheet

Mixed Bed IX Resins for Ultrapure Water

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)
- Mixed resin with equivalent amounts of cations and anions
- Excellent physical properties



Key Benefits

- Highly efficient exchange capacity
- Longer service cycle
- Removal of both cations and anions
- Ready-to-use



Key Applications

- Demineralization
- TOC removal
- RO permeate water polishing
- UPW system

Physical and Chemical Properties

Product Name		QuantumPure™ UPW-100		QuantumPure™ UPW-200		QuantumPure™ UPW-300		QuantumPure™ UPW-400	
Matrix		Styrene-divinylbenzene, Gel							
Functional Group		H ⁺	OH ⁻	H ⁺	OH ⁻	H ⁺	OH ⁻	H ⁺	OH ⁻
Ionic Form		1.8	1.0	1.9	1.0	1.9	1.0	1.9	1.0
Average Diameter (µm)		620±50	620±50	620±50	620±50	620±50	620±50	620±50	620±50
Uniformity Coefficient		≤1.1	≤1.1	≤1.1	≤1.1	≤1.1	≤1.1	≤1.1	≤1.1
Ionic Conversion (%)	H ⁺	99.0 Min	-	99.0 Min	-	99.0 Min	-	99.0 Min	-
	OH ⁻	-	95.0 Min	-	95.0 Min	-	95.0 Min	-	95.0 Min
	Cl ⁻	-	1.0 Max	-	1.0 Max	-	1.0 Max	-	1.0 Max
Mixed Ratio		1:1 (by equivalents) Cation : Anion		1:1 (by equivalents) Cation : Anion		1:1 (by equivalents) Cation : Anion		1:1 (by equivalents) Cation : Anion	
Inlet Condition	Water Type	RO Permeate Water		Ultrapure Water		Ultrapure Water		Ultrapure Water	
	Specific Flow Rate	SV30		SV30		SV30		SV30	
	Resistivity	17.5MΩ·cm		17.5MΩ·cm		17.5MΩ·cm		17.5MΩ·cm	
	TOC	-		<2 ppb		<2 ppb		<2 ppb	
Outlet Condition	Resistivity	Guaranteed >18.0 MΩ·cm↑(in 30 min.)		Guaranteed >18.1 MΩ·cm↑(in 30 min.)		Guaranteed >18.2 MΩ·cm↑(in 30 min.)		Guaranteed >18.2 MΩ·cm↑(in 30 min.)	
	ΔTOC	-		<5 ppb (in 120min.)		<1 ppb(in 180min.)		<1 ppb (in 180min.)	

Recommended Operating Conditions

Operating Temp (°C) [°F]	60 [140]
Min. Bed Depth (mm)	600
pH Range	0–14
Service Flow Rate (m/h)	5–60

*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 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

through the application of the information contained herein. Customer is responsible for determining whether the products and information presented herein are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice. QuantumPure is the Trademark of LG Chem. All rights reserved. © LG Chem, Ltd.