

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)
- Ready to use, pre-regenerated uniform cation & anion resin in equivalent exchange capacity.
- 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		Sulfonic Acid	Type 1 (Trimethylammonium)	Sulfonic Acid	Type 1 (Trimethylammonium)	Sulfonic Acid	Type 1 (Trimethylammonium)	Sulfonic Acid	Type 1 (Trimethylammonium)
Ionic Form		H ⁺	OH ⁻	H ⁺	OH ⁻	H ⁺	OH ⁻	H ⁺	OH ⁻
Total Capacity, min. (eq/ℓ)		1.9	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	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

Max. 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.

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