



LG QuantumPure™

The Choice for High-Performance Ion Exchange Resins

LG Water Solutions

QuantumPure™ offers a comprehensive range of high-performance ion exchange (IX) resins, including SAC, SBA, WAC, WBA, and mixed bed resins in various ionic forms, 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, QuantumPure™ IX resins deliver consistent quality, excellent chemical resistance, and extended service life, reducing the need for frequent replacements and maintenance. As a part of the LG Water Solutions product line, QuantumPure™ IX resins deliver the benefits of a globally trusted brand renowned for innovation and quality.

Premium IX Resins with Uniform Particle Size

Exceptional Uniformity:

Our premium product features a uniformity coefficient below 1.1 (WBA: ≤1.2) for reliable performance every time.

Rigorous Quality Control:

Manufactured to meet the highest quality control standards to maximize efficiency and durability.

Enhanced System Performance:

Engineered to enhance system performance with superior exchange capacity and extended service cycles, providing long-term reliability and operational cost savings.

Flexible Applications:

Available in three resin types – SAC, SBA, and WBA, designed for versatile applications across a wide array of water treatment needs.

Product	UC-08	UC-08 H	UC-10	UC-10 H
Resin Type	SAC			
Matrix	Styrene-Divinylbenzene			
Structure	Gel Type (Micropore)			
Functional Group	Sulfonic acid			
Ionic Form	Na ⁺	H ⁺	Na ⁺	H ⁺
Total Capacity, min. (eq/L)	2.00	1.80	2.20	2.00
Uniformity Coefficient	≤1.1			
Average Diameter (µm)	600±50	620±50	650±50	660±50
Specific Gravity*	1.28	1.20	1.32	1.22
Shipping Weight (g/L)*	840	800	830	800
Max. Operating Temperature	120°C / 248°F			
Operating pH Range	0-14			
Moisture Retention (%)	43-49	50-56	38-44	45-51
Swelling Rate	9% (Na ⁺ → H ⁺)		8% (Na ⁺ → H ⁺)	

Product	UA-10	UA-10 OH	UA-12	UA-12 OH	UA-20	UWA-80
Resin Type	SBA					WBA
Matrix	Styrene-Divinylbenzene					
Structure	Gel Type (Micropore)					Porous Type (Macropore)
Functional Group	Trimethyl Ammonium (Type 1)				Dimethylethanol Ammonium (Type 2)	Tertiary Amine
Ionic Form	Cl ⁻	OH ⁻	Cl ⁻	OH ⁻	Cl ⁻	Free Base
Total Capacity, min. (eq/L)	1.35	1.10	1.30	1.00	1.30	1.60
Uniformity Coefficient	≤1.1	≤1.1	≤1.1	≤1.1	≤1.1	≤1.2
Average Diameter (µm)	550±50	590±50	575±50	620±50	575±50	500±100
Specific Gravity*	1.08	1.07	1.08	1.07	1.11	1.04
Shipping Weight (g/L)*	670	655	670	660	690	615
Max. Operating Temperature	80°C / 176°F (Cl type); 60°C / 140°F (OH type)				60°C / 140°F (Cl type); 40°C / 104°F (OH type)	60°C / 140°F
Operating pH Range	0-14	0-14	0-14	0-14	0-14	0-9
Moisture Retention (%)	43-49	59-65	49-55	62-70	45-51	55-60
Swelling Rate*	23% (Cl ⁻ → OH ⁻)		24% (Cl ⁻ → OH ⁻)		14% (Cl ⁻ → OH ⁻)	23% (FB → Cl ⁻)

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

IX Resins with Gaussian Distribution

Reliable Quality:

With a uniformity coefficient below 1.6, our product ensures consistent performance across various applications.

Cost-Effective Solution:

Economical choice for diverse water treatment needs with high-quality performance.

Flexible Applications:

Available in three resin types – SAC, SBA, and WBA, designed for versatile applications across a wide array of water treatment needs.

Product	GC-07	GC-08	GC-70	GC-80
Resin Type	SAC			
Matrix	Styrene-Divinylbenzene			
Structure	Gel Type (Micropore)			
Functional Group	Sulfonic Acid			
Ionic Form	Na ⁺	Na ⁺	Na ⁺	Na ⁺
Total Capacity, min. (eq/L)	1.90	2.00	1.90	2.00
Uniformity Coefficient	≤1.6			
Average Diameter (µm)	300–1200			
Specific Gravity*	1.25	1.25	1.25	1.25
Shipping Weight (g/L)*	800	800	800	800
Max. Operating Temperature	120°C / 248°F			
Operating pH Range	0–14			
Moisture Retention (%)	45–50	43–50	45–50	43–50
Swelling Rate	9% (Na ⁺ → H ⁺)	8% (Na ⁺ → H ⁺)	8–9% (Na ⁺ → H ⁺)	8–9% (Na ⁺ → H ⁺)

Product	GA-10	GA-20	GWC-10L	GWA-30
Resin Type	SBA		WAC	WBA
Matrix	Styrene-Divinylbenzene		Acrylic	Styrene-Divinylbenzene
Structure	Gel Type (Micropore)		Porous Type (Macropore)	
Functional Group	Trimethyl Ammonium (Type 1)	Dimethylethanol Ammonium (Type 2)	Carboxylic Acid	Tertiary Amine
Ionic Form	Cl ⁻	Cl ⁻	H ⁺	Free Base
Total Capacity, min. (eq/L)	1.35	1.30	4.50	1.50
Uniformity Coefficient	≤1.6	≤1.6	≤1.6	≤1.6
Average Diameter (µm)	300–1200	300–1200	425–1200	300–1200
Specific Gravity*	1.11	1.13	1.19	1.05
Shipping Weight (g/L)*	670	700	720	635
Max. Operating Temperature	80°C / 176°F (Cl type); 60°C / 140°F (OH type)	60°C / 140°F (Cl type); 40°C / 104° (OH type)	120°C / 248°F	60°C / 140°F
Operating pH Range	0–14	0–14	4–14	0–9
Moisture Retention (%)	42–48	40–50	45–55	48–58
Swelling Rate*	24% (Cl ⁻ → OH ⁻)	15% (Cl ⁻ → OH ⁻)	10% (H ⁺ → Ca ²⁺)	20% (FB → Cl ⁻)

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IX Resins for Mixed Bed

Ready-to-Use:

Mixed resins engineered for efficient, convenient production of high-purity water.

Flexible Resin Size Options:

Available in both uniform particle size or Gaussian distribution types to meet diverse treatment needs.

Optimized for Ultrapure Water Applications:

The UPS type is optimized as a final polisher in ultrapure water applications, ensuring the highest levels of water purity.

Product		UPW-100	UPW-200	UPW-300	UPW-400
Mixed Ratio		1:1 (by equivalents) Cation : Anion			
Matrix		Styrene-Divinylbenzene			
Structure		Gel Type(Micropore)			
Uniformity Coefficient		≤1.1			
Average Diameter (μm)		620±50			
Max. Operating Temperature		60°C / 140°F			
Operating pH Range		0-14			
Inlet Condition	Water Type	RO Permeate Water	Ultrapure Water		
	Specific Flow Rate	SV30			
	Conductivity	>17.5 MΩ · cm			
	TOC	-	<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 120 min)	<1 ppb (in 180 min)	<1 ppb (in 180 min)

Product		GMB-200	GMB-210	GMB-300
Mixed Ratio		1:1 (by equivalents) Cation : Anion		
Matrix		Styrene-Divinylbenzene		
Structure		Gel Type(Micropore)		
Uniformity Coefficient		≤1.6		
Average Diameter (μm)		300±1200		
Max. Operating Temperature		60°C / 140°F		
Operating pH Range		0-14		
Inlet Condition	Water Type	Potable Water		RO Permeate Water
	Specific Flow Rate	SV36		SV36
	Conductivity	150 μs/cm		150 μs/cm
Outlet Condition	Resistivity	Guaranteed: >10.0 MΩ · cm Actual: >15.0 MΩ · cm (in 10 min)		Guaranteed: >15.0 MΩ · cm Actual: >17.0 MΩ · cm (in 10 min)

Product	IR-30	IR-70
Resin Type	Inert	Inert
Matrix	Ethylene-Divinylbenzene	Ethylene
Average Diameter (μm)	700-900	≥1200
Specific Gravity*	1.13-1.15	0.85-0.95
Shipping Weight (g/L)*	670-720	500-600
Max. Operating Temperature	100°C / 212°F	90°C / 194°F
Operating pH Range	0-14	0-14
Application	Boundary layer in a mixed bed system for resin layer separation.	Top layer in packed bed system for resin leakage prevention and regenerant chemicals dispersion.

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