

TRILITE® UPRA200U

Uniform Particle Size Strong Base Anion Exchange Resin for Ultrapure water

Rev 3. Jan 2023

TRILITE® UPRA200U is a UPS, SBA, gel-type, type1 exchange resin for ultrapure water designed with excellent ion removal capacity, allowing for the economical production of high-purity water. TRILITE® UPRA200U is a product that reduces TOC with high exchange capacity and chemical/physical stability, allowing for long-term use.

Physical and Chemical Properties

Matrix	Polystyrene+DVB, Gel	Functional Group	Type 1 (Trimethylammonium)
Ionic Form	OH ⁻	Total Capacity(eq/ℓ)	1.00 ↑
Shipping Density(g/ℓ)	680	Moisture Retention(%)	62~70
Particle Density	1.08	Uniformity Coefficient	1.1 ↓
Particle Size(μm)	620±50	Whole Beads(%)	95 ↑
Compression strength (kgf/bead)	1.0 ↑	Ionic Conversion(%)	OH ⁻ (95.0 ↑), Cl ⁻ (1.0 ↓)

Recommended Operating Conditions

Operating Temp(°C)	60	pH Range	0-14
Bed Depth(mm)	800	Service Flow Rate(m/h)	5~60
Outlet Resistivity (MΩ·cm)	15 min.	ΔTOC (ppb)	20 max.

Applications

TRILITE® UPRA200U is widely used for demineralization for ultrapure water applications (i.e semiconductor, display, pharmaceuticals, nuclear & thermal power plant)

Hydraulic Characteristics

Figure 1 and 2 show the backwash expansion of TRILITE® UPRA200U as a function of flow rate and temperature.

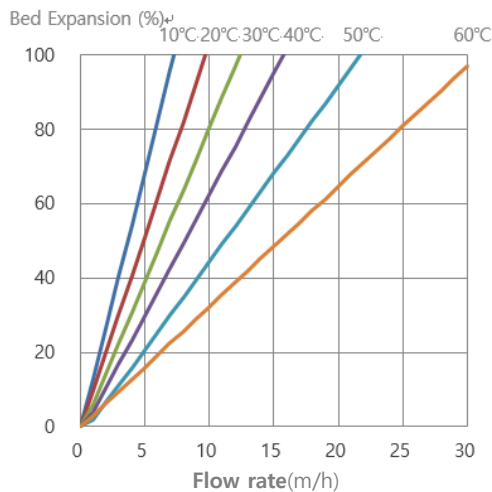


Figure 1. TRILITE® UPRA200U Bed Expansion

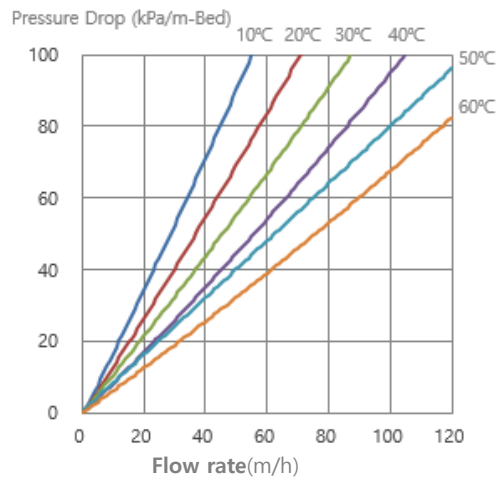


Figure 2. TRILITE® UPRA200U Pressure Drop

Resistivity & TOC

- Resistivity > 15.0 MΩ.cm (in 30min)
- ΔTOC < 20ppb (in 120min)
- Operating condition (Inlet): Resistivity > 17.5 MΩ.cm, TOC < 2ppb, SV = 30

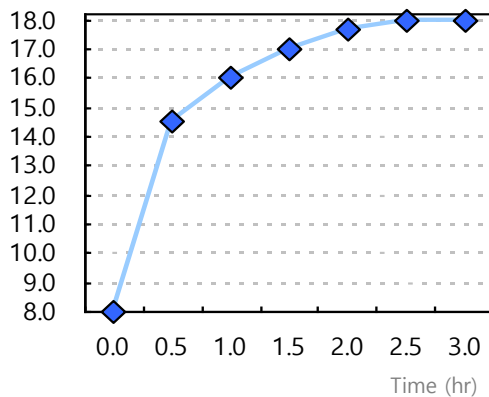


Figure 3. TRILITE® UPRA200U Resistivity

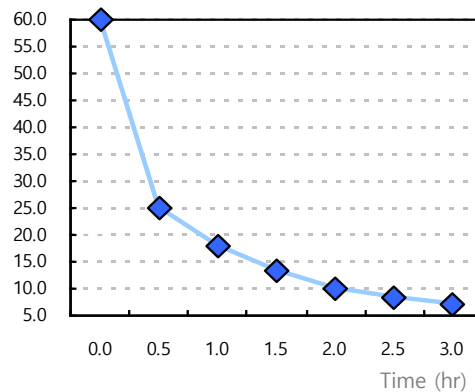


Figure 4. TRILITE® UPRA200U ΔTOC

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Samyang's TRILITE Ion exchange resins are produced based on the ISO 9001, ISO 14001 certification.
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