

TRILITE® MA-12

Uniform Particle Size Strong Base Anion Exchange Resin

Rev 3. Jan 2023

TRILITE® MA-12 is a standard cross-linked UPS, SBA, gel-type, type1 exchange resin with excellent ion removal capacity, allowing for economical production of high-purity water. TRILITE® MA-12 has outstanding physical and chemical strength, resulting in a low resin crush rate over long-term use. It is supplied in its Cl⁻ form and can also be supplied in its OH⁻ form.

Physical and Chemical Properties

Matrix	Polystyrene+DVB, Gel	Functional Group	Type 1 (Trimethylammonium)
Ionic Form	Cl ⁻	Total Capacity(eq/ℓ)	1.30 ↑
Shipping Density(g/ℓ)	670	Moisture Retention(%)	49~55
Particle Density	1.08	Uniformity Coefficient	1.1 ↓
Particle Size(μm)	575±50	Swelling Rate (Cl ⁻ →OH ⁻ , %)	24
Whole Beads(%)	95 ↑		

Recommended Operating Conditions

Operating Temp(°C)	60 ↓ (OH ⁻) 80 ↓ (Cl ⁻)	pH Range	0-14
Bed Depth(mm)	800	Service Flow Rate(m/h)	5~60

Regeneration

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

Applications

TRILITE® MA-12 is used for special purification applications such as water treatment, metal recovery, and sugar solutions due to its high SiO₂ removal ability and thermal resistance compared to TRILITE® MA-20.

Hydraulic Characteristics

Figure 1 and 2 show the backwash expansion of TRILITE® MA-12 as a function of flow rate and temperature.

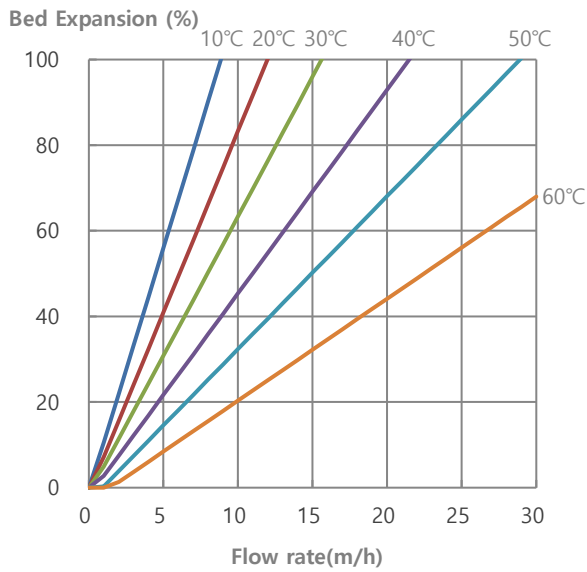


Figure 1. TRILITE® MA-12 Cl- Type

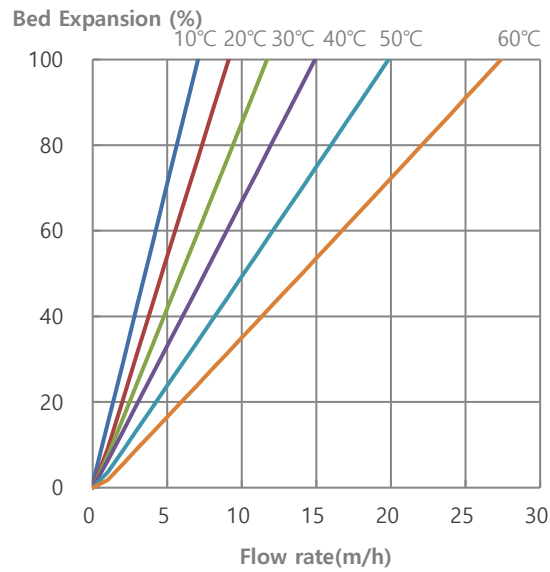


Figure 2. TRILITE® MA-12 OH- Type

Figure 3 and 4 show the pressure drop of TRILITE® MA-12 as a function of flow rate and water temperature.

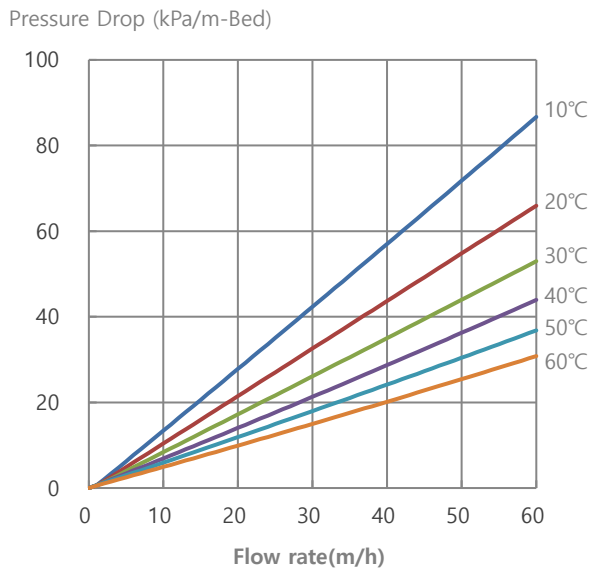


Figure 3. TRILITE® MA-12 Cl- Type

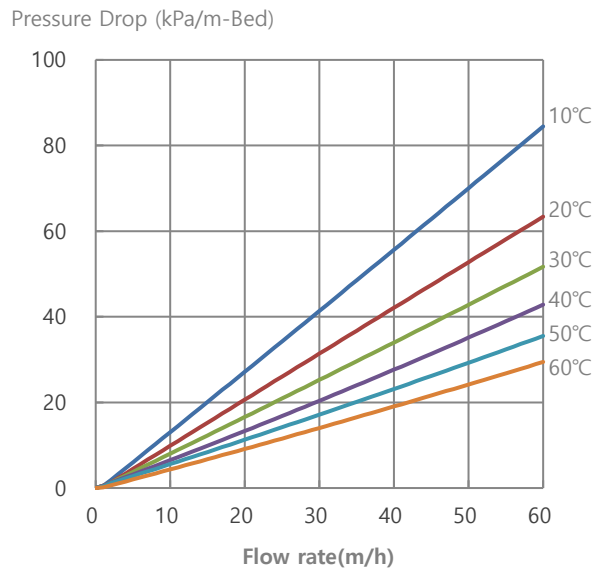


Figure 4. TRILITE® MA-12 OH- Type

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

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