

TRILITE® MC-10H

Uniform Particle Size Strong Acid Cation Exchange Resin

Rev.3 Feb 2023

TRILITE® MC-10H is a UPS, SAC gel-type exchange resin with excellent ion removal capacity, which allows for the economical production of high-purity water. TRILITE® MC-10H is a highly cross-linked product with outstanding physical and chemical strength, resulting in a low resin attrition rate over long-term use. It is supplied in its H⁺ form.

Physical and Chemical Properties

Matrix	Polystyrene+DVB, Gel	Functional Group	Sulfonic acid
Ionic Form	H ⁺	Total Capacity(eq/ℓ)	2.00 ↑
Shipping Density(g/ℓ)	805	Moisture Retention(%)	45~51
Particle Density	1.22	Uniformity Coefficient	1.1 ↓
Particle Size(μm)	660±50	Swelling Rate(Na ⁺ →H ⁺ , %)	8
Whole Beads(%)	95 ↑		

Recommended Operating Conditions

Operating Temp(°C)	120 ↓	pH Range	0~14
Bed Depth(mm)	800	Service Flow Rate(m/h)	5~120

Regeneration

Regenerant	HCl / H ₂ SO ₄	Concentration(%)	HCl (4~10) / H ₂ SO ₄ (1~4))
Level(g/ℓ)	50~200	Flow Rate(m/h)	2~10
Rinse Requirement(BV)	2~6		

Applications

TRILITE® MC-10H is widely used for softening, demineralization, and other special processes like catalyst reaction. Especially, TRILITE® MC-10H can be used for CPP(Condensate Polishing Plant) together with TRILITE® MA-10OH.

Hydraulic Characteristics

Figure 1 and 2 show the backwash expansion of TRILITE® MC-10 as a function of flow rate and temperature.

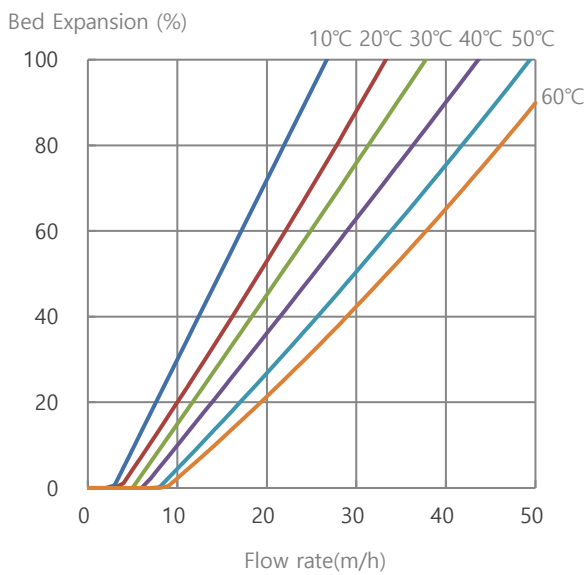


Figure 1. TRILITE® MC-10 Na⁺ Type

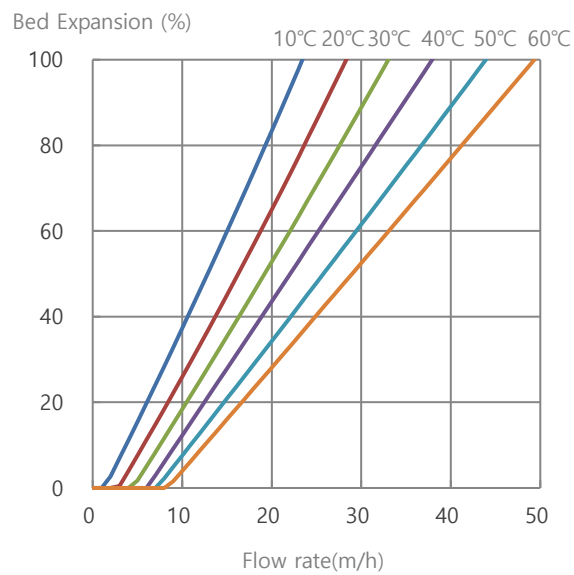


Figure 2. TRILITE® MC-10 H⁺ Type

Figure 3 and 4 show the pressure drop of TRILITE® MC-10 as a function of flow rate and water temperature.

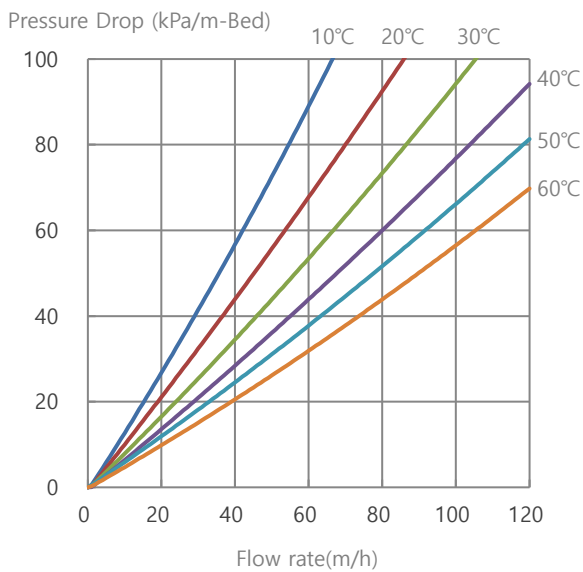


Figure 3. TRILITE® MC-10 Na⁺ Type

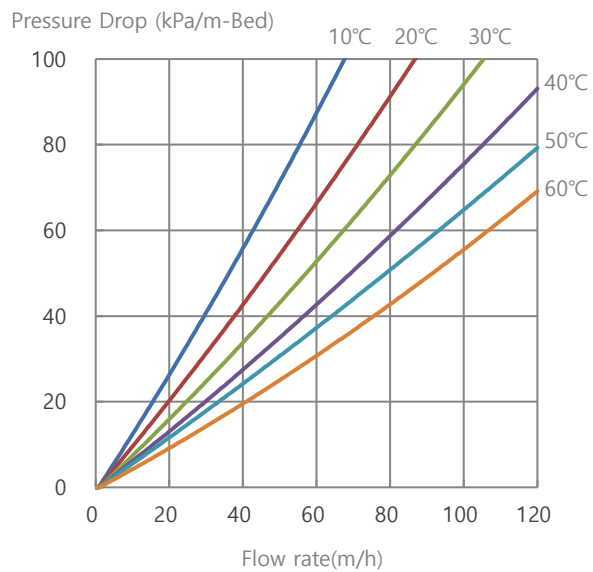


Figure 4. TRILITE® MC-10 H⁺ Type

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