

**TRILITE® MC-10**

Uniform Particle Size Strong Acid Cation Exchange Resin

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TRILITE® MC-10 Strong Acid Cation Exchange Resin is a Gel Type Uniform Particle Size resin. Because of its excellent ion removal capacity, high purity water can be produced economically. TRILITE® MC-10 is a high cross-linkage product and it has outstanding mechanical and chemical stability, leading to low crush rate even after long-term use. TRILITE® MC-10 can be supplied by Na<sup>+</sup> form but H<sup>+</sup> form can be available depending on application and user's request.

**Physical and Chemical Properties**

Physical Form	Khaki translucent spherical beads	Matrix	Styrene-DVB, Gel
Functional Group	Sulfonic acid	Ionic Form	Na <sup>+</sup>
Total Capacity(eq/ℓ)	2.20 ↑	Moisture Retention(%)	38~44
Shipping Density(g/ℓ)	850	Particle Density	1.32
Uniformity Coefficient	1.1 ↓	Particle Size(μm)	650±50
Whole Beads(%)	95 ↑	Swelling(Na <sup>+</sup> →H <sup>+</sup> , %)	8

**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 <sub>2</sub> SO <sub>4</sub>	Concentration(%)	HCl(1~8), H <sub>2</sub> SO <sub>4</sub> (1~4)
Level(g/ℓ)	30~150	Flow Rate(m/h)	2~10
Rinse Requirement(BV)	2~6		

**Applications**

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

## Hydraulic Characteristics

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

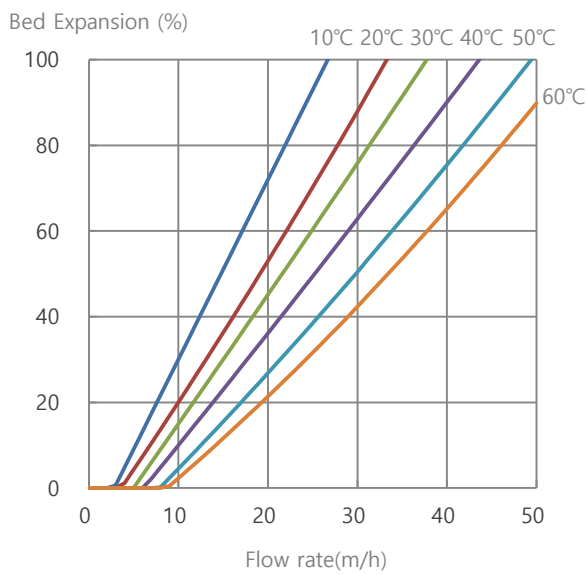


Figure 1. TRILITE® MC-10 Na<sup>+</sup> Type

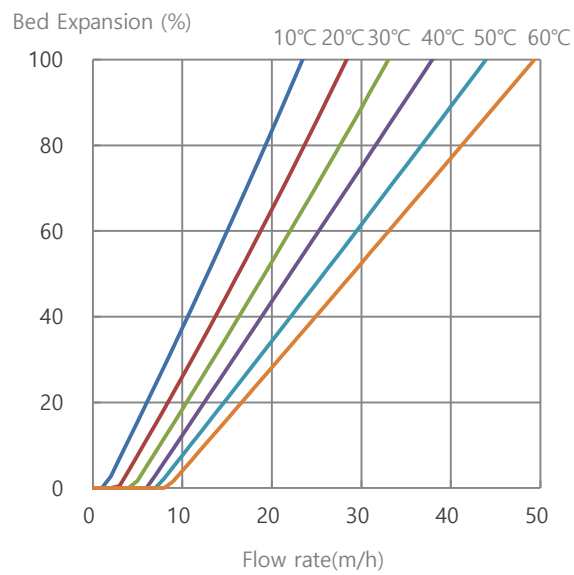


Figure 2. TRILITE® MC-10 H<sup>+</sup> Type

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

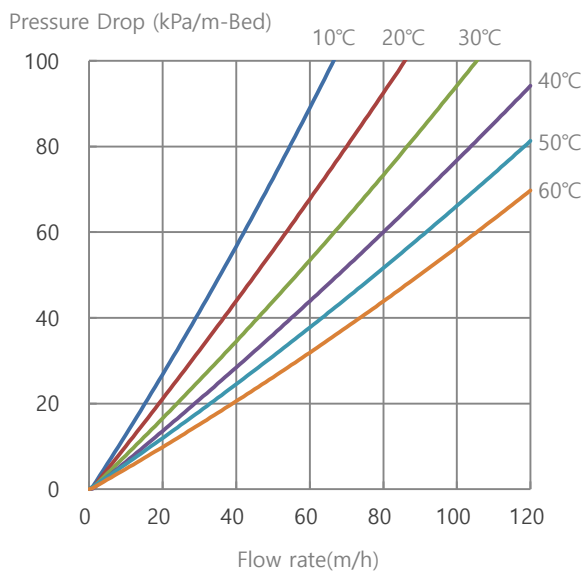


Figure 3. TRILITE® MC-10 Na<sup>+</sup> Type

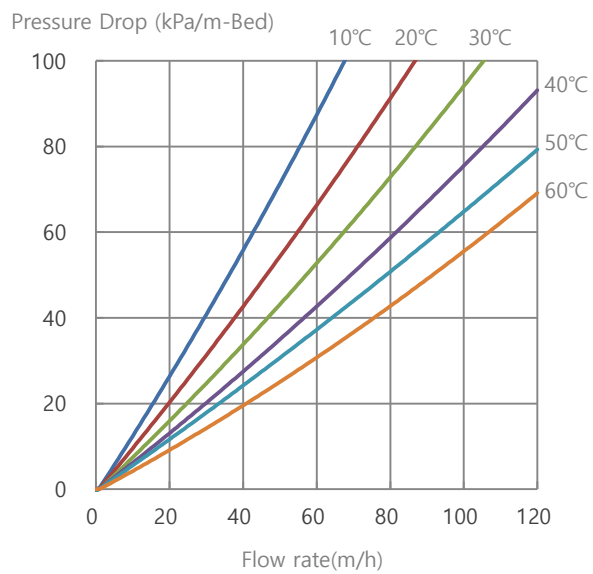


Figure 4. TRILITE® MC-10 H<sup>+</sup> Type

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