

**TRILITE® WCA10L**

Gaussian Weak Acid Cation Exchange Resin

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TRILITE® WCA10L is a Gaussian, WAC porous-type exchange resin with excellent ion removal capacity, which allows for the economical production of high-purity water. TRILITE® WCA10L has outstanding physical and chemical strength, resulting in a low resin crush rate over long-term use. It is supplied in its H<sup>+</sup> form.

**Physical and Chemical Properties**

Matrix	Polystyrene+DVB, Porous	Functional Group	COOH(Carboxylic acid)
Ionic Form	H <sup>+</sup>	Total Capacity(eq/ℓ)	4.20 ↑
Shipping Density(g/ℓ)	720	Moisture Retention(%)	45~50
Particle Density	1.19	Uniformity Coefficient	1.6 ↓
Particle Size(μm)	300~1,200	Whole Beads (%)	95 ↑
Swelling rate (H <sup>+</sup> →Na <sup>+</sup> , %)	60	Swelling rate (H <sup>+</sup> →Ca <sup>2+</sup> , %)	10

**Recommended Operating Conditions**

Operating Temp(°C)	120 ↓	pH Range	4~14
Bed Depth(mm)	700	Service Flow Rate(m/h)	5~50

**Regeneration**

Regenerant	HCl / H <sub>2</sub> SO <sub>4</sub>	Concentration(%)	HCl (1~5) / H <sub>2</sub> SO <sub>4</sub> (1~2)
Level(g/ℓ)	40~150	Flow Rate(m/h)	4~20
Rinse Requirement(BV)	4~10		

**Applications**

TRILITE® WCA10L has high total capacity and macroporous polymer structure which facilitates the diffusion of ions, especially divalent or multivalent cations. It is used for demineralization, metal recovery, and special refinement.

## Hydraulic Characteristics

Figure 1 and 2 show the backwash expansion of TRILITE® WCA10L as a function of flow rate and temperature.

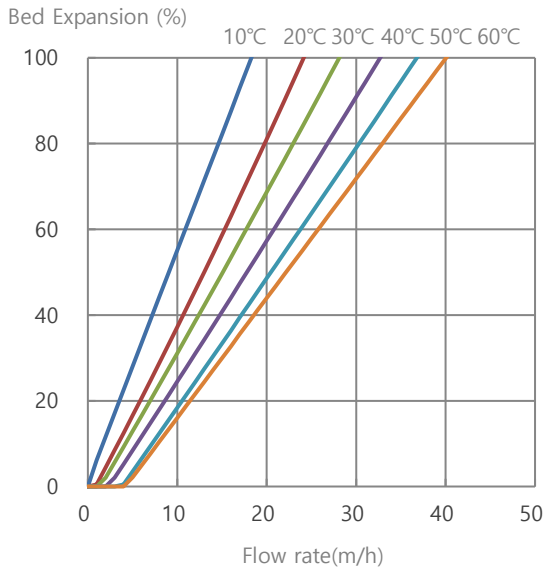


Figure 1. TRILITE® WCA10L Na<sup>+</sup> Type bed expansion

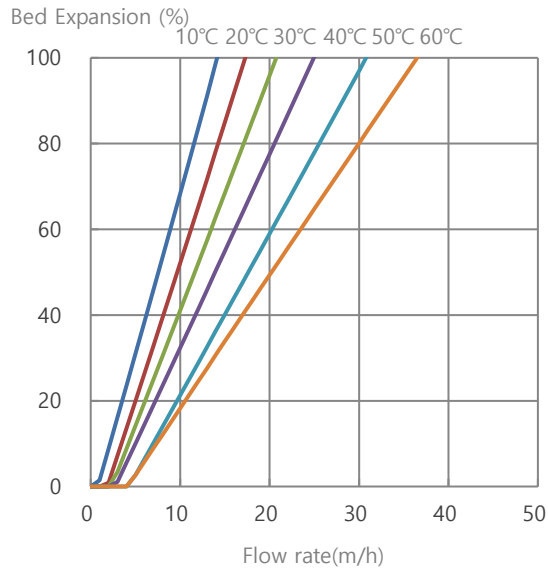


Figure 2. TRILITE® WCA10L H<sup>+</sup> type Bed expansion

Figure 3 and 4 show the pressure drop of TRILITE® WCA10L as a function of flow rate and water temperature.

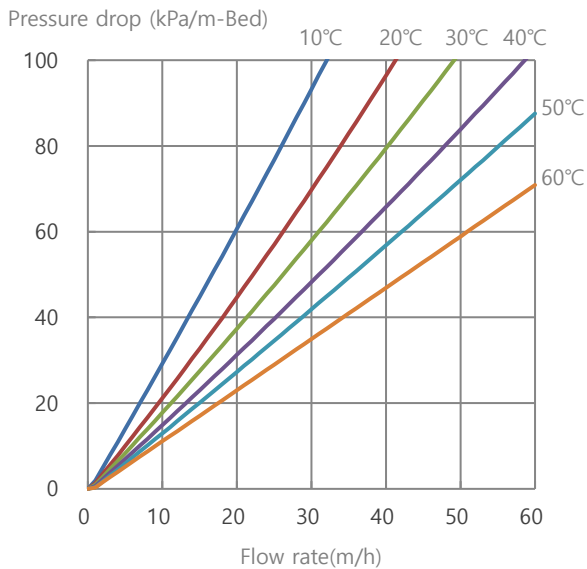


Figure 3. TRILITE® WCA10L Na<sup>+</sup> type

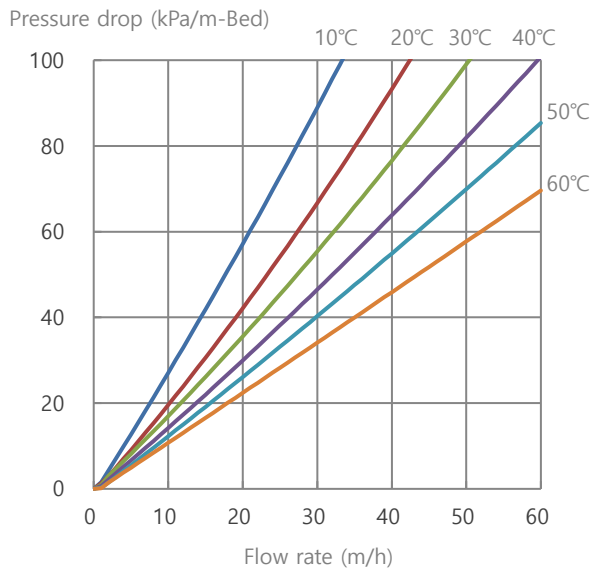


Figure 4. TRILITE® WCA10L H<sup>+</sup> type

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

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