

TRILITE® SPC180H

Gaussian Strong Acid Cation Exchange Resin, Macroporous

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TRILITE® SPC180H is a SAC, porous-type exchange resin with high exchange capacity, outstanding mechanical wear resistance, and chemical/physical stability. It is a highly active catalyst that can be used for a range of catalytic reactions, including esterification, etherification, alkylation, and hydration. Additionally, it can be used to produce high-purity treated water efficiently.

Physical and Chemical Properties

Matrix	Styrene-DVB, Macroporous	Functional Group	Sulfonic acid
Ionic Form	H ⁺	Total Capacity(eq/ℓ)	4.5 ↑
Shipping Density(g/ℓ)	1.5 ↑	Moisture Retention(%)	750
Particle Density	53~60	Uniformity Coefficient	1.6 ↓
Particle Size (μm)	300~1,200	Swelling Rate(Na ⁺ →H ⁺ , %)	8
Specific surface area(m ² /g)	40~70	Pore Volume(ml/g)	0.3~0.5
Pore Size(nm)	20~50	Whole Beads(%)	95 ↑

Recommended Operating Conditions

Operating Temp(°C)	120	pH Range	0~14
Bed Depth(mm)	750	Service Flow Rate(m/h)	8~40

Applications

TRILITE® SPC180H is widely used for not only for water treatment, but also various applications including esterification(1,4 BDO,MMA), Etherification (MTBE/TAME/ETBE) and other reactions (Alkylation and Hydration)

Hydraulic Characteristics

Figure 1 shows the backwash expansion of TRILITE® SPC180H as a function of flow rate and temperature

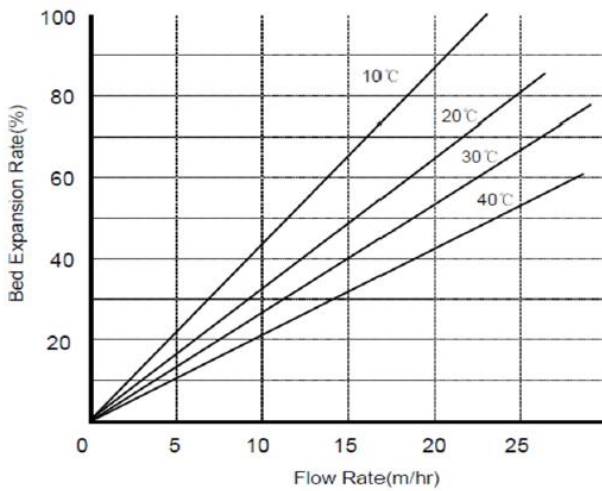


Figure 1. TRILITE® SPC180H Bed Expansion

Figure 2 shows the pressure drop of TRILITE® SPC180H as a function of flow rate and water temperature.

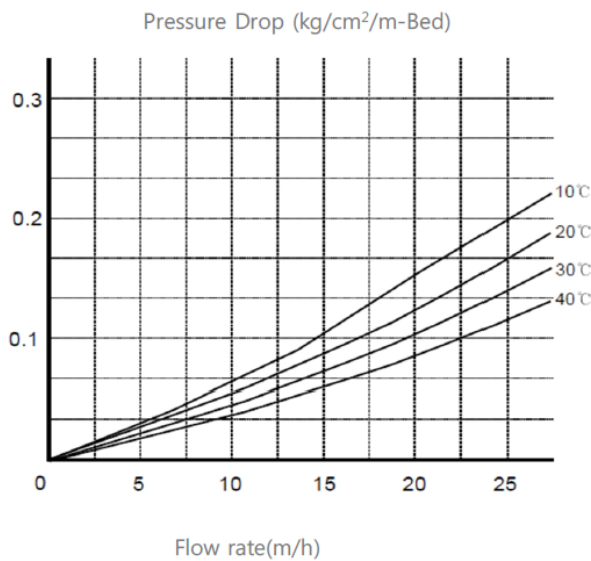


Figure 2. TRILITE® SPC180H Pressure Drop

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