TRILITE® MCN116K

Cation Exchange Resin for Nuclear Power Plant Application

Rev.1 July 2018

TRILITE® MCN116K Strongly Acidic Cation Exchange Resin is a Gel Type Uniform Particle Size resin and it has Styrene Monomer and Divinyl Benzene as matrix and sulfonic acid as functional group.

TRILITE® MCN116K is highly cross-linked product with outstanding mechanical strength and chemical stabilities, which results in low crush rate even after long-term use. TRILITE® MCN116K is a product with high whole bead rate which result in better service flow.

For nuclear power plant system, TRILITE® MMN316K maintains treated water quality(△TOC) lower than 10ppb under the recommended operating condition.

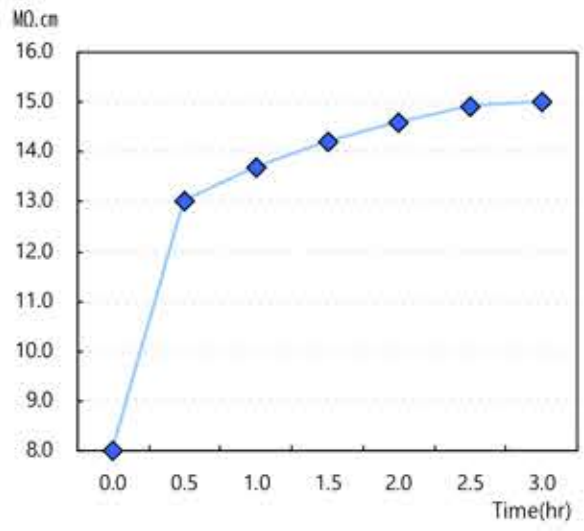
Physical and Chemical Properties			
Physical Form	Yellowish brown color spherical beads	Matrix	Styrene-DVB, Gel
Functional Groups	Sulfonic acid	Ionic Forms	H^+
Total Capacity(eq/ℓ)	2.4 ↑	Moisture Retention(%)	36~43
△TOC	10 ↓	Whole Beads(%)	95 ↑
Uniformity Coefficient	1.2 ↓	Particle Sizes(mm)	0.65±0.05

Recommended Operating Conditions			
Operating Temp(℃)	120	pH Range	0~14
Bed Depth(mm)	800	Service Flow Rate(m/h)	5~120

1. Test Conditions and Results

- Resistivity > 12.0 MΩ.cm (in 30min)
- ΔTOC < 10ppb (in 90min)
- Standard operating condition (Feed Water): Resistivity > 17.5 MΩ.cm, TOC < 3ppb, SV = 30

< Resistivity >



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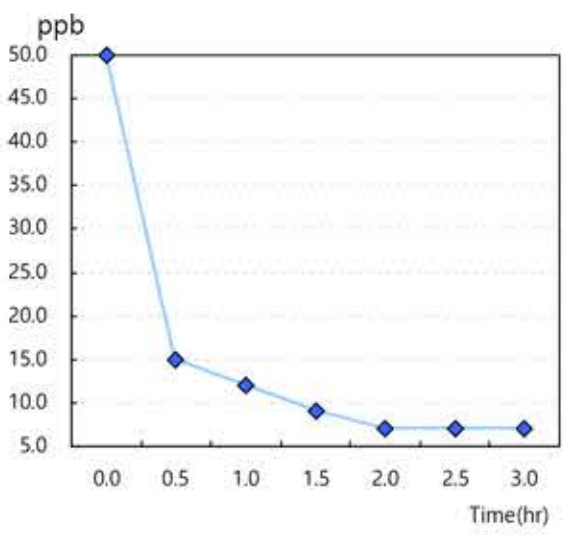

2. Hydraulic Characteristics

1) Bed Expansion

Figure 1 shows the backwash expansion of TRILITE® MCN116K as a function of flow rate and temperature.

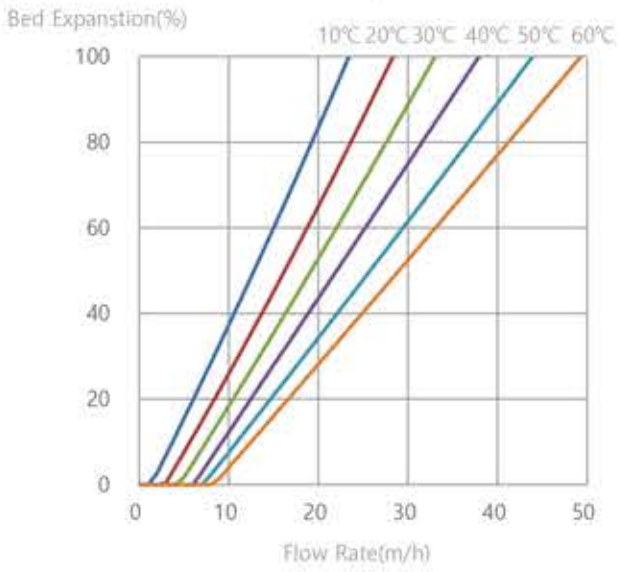

Figure 1. Bed Expansion for TRILITE® MCN116K H^+

2) Pressure Drop

Figure 2 shows the pressure drop of TRILITE® MCN116K as a function of flow rate and water temperature.

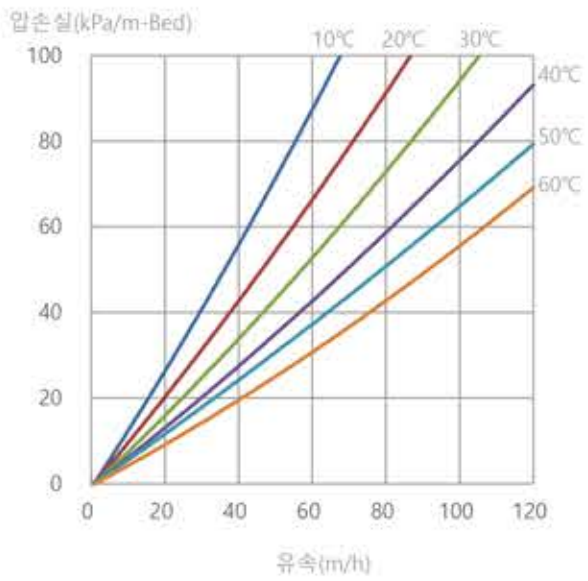

Figure 2. Pressure Drop for TRILITE® MCN116K H^+ Type

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

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TRILITE 삼양 트리라이트 Ion Exchange Resin

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