Strong Acid Cation Exchange Resin

001×10

001×10 is a polystyrene matrix of gel type strong acid cation exchange resin containing sulfuric acid group, which is equivalent to solid sulfuric acid. Mainly used for water treatment and biochemical substances extraction.

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Name	Specification
Appearance	Pale yellow clear spherical beads
Polymer	Styrene-DVB-Copolymer,gel-type
Functional Group	$-SO_3H$
Ionic Form	Na^+
Weight Exchange Capacity	≥4.4mmol/g
Volume Exchange Capacity	≥2.2 mmol/ml
Real Density (g/ml）	1.25~1.29g/ml
Bulk Density (g/ml)	0.80~0.88g/ml
Water Retention Capacity	38%~43%
Particle Size Range	0.315~1.25 mm≥95
Uniformity Coefficient	≤1.6
Whole Bead Count（%）	≥95%

Reference Operation Conditions

Maximum operating temperature	120℃
Resin filling height	1~3m
Operating velocity	2~10BV/h
Backwash velocity	4~10BV/h
Regeneration (desorption) velocity	1~2BV/h
Regeneration agent	2BV3~5%HCI，2BV2~4% NaOH

Application

- Water Treatment
- Biochemical substances extraction

Precautions

- Resin should be wet state preservation. The best temperature is above 0℃. Resin should be put into a closed space or add in salt water of 5% or above if not used for a long time.Should be anti-freezing during transportation. Do not place heavy objects on the resin in case being crashed.
- Generally requires alkali- water - acid - water flow path for processing. Strict requirement needs three circulation before coming to final ion kenel.
- Need to consider different transformation expansion rate to set aside enough space to prevent resin overflow and ensure the appropriate liquid level height; Column diameter ratio should be within a reasonable range and avoid bias current; Use wet packed column or back-flushing to wash away bubbles inside resin layer.
- Before liquid going into the resin column, steps as flocculation, filtration, or sand-filtration should be taken so that it doesn't jam resin pore with suspended solids .
- Resin inside the column that hasn't been used for a long time should be storaged outside of the column after washing, or adding salt water in the salt resistant medium while keeping liquid level not dehydrated with usual backwashing to loosen resin in case of agglomeration.