

HYDROLUX[®] S90

Descriptions

HYDROLUX[®] S90 is a standard crosslinkage strongly acidic cation exchange resin (Gel Type). It has styrene-divinylbenzene copolymer with sulfonic acid functional group.

HYDROLUX[®] S90 has high operating capacity, excellent mechanical, chemical stability and high whole bead count. Applications are from general water treatments of softening and demineralization.

Specification

Matrix	Polystyrene + DVB (Divinyl Benzene)
Ionic Form	Na ⁺
Shipping Weight (g/L)	830 ± 5%
Specific gravity (g/ml)	1.29 approx.
Total Capacity (eq/L)	2.0 ↑ (Na ⁺ form)
Moisture Retention (%)	46 ± 5
Uniformity Coefficient	≤ 1.6
Particle Size (mm)	0.315 ~ 1.25
Effective Size (mm)	0.4 ↑
Whole Prefect Beads (%)	95 min
Maximum Swelling	H ⁺ / Na ⁺ = 1.08
Operating Temp	120°C max
Operating pH	0 ~ 14

Suggested Operating Data

Maximum Temperature	120 °C
pH Range	0~14
Minimum Bed Depth	1000 mm
Service Flow Rate	5-25 BV/h
Velocity	40 m/h (max.)
Pressure Drop	150 kPa (max.)

Backwash Flow Rate	
Flow at 50% Expansion, Na ⁺ Form	12.5 m/h at 20 °C
Flow at 80% Expansion, Na ⁺ Form	20 m/h at 20 °C

Regeneration	
Regenerant	HCl
Regenerant Level	40~90 g/L-R
Concentration	4~6%
Flow Rate	5 m/h
Rinse Water Flow Rate	5 m/h
Rinse Water requirement	5 BV

Regenerant	H ₂ SO ₄
Regenerant Level	80~120 g/L-R
Concentration	1~3%
Flow Rate	5 m/h
Rinse Water Flow Rate	5 m/h
Rinse Water requirement	5 BV

Regenerant	NaCl
Regenerant Level	100~200 g/L-R
Concentration	8~10%
Flow Rate	5 m/h
Rinse Water Flow Rate	5 m/h
Rinse Water requirement	5 BV

Handling

To protect eyes and skin of operator, protective gears such as glasses, sometimes gloves are necessary. It is recommended that eye-wash facilities are nearby at the using area. Since it is small beads type, it will be very slippery when it is spilled on the floor. Exposure to high temperature, sparks and flames should be avoided.

Exposure to or mixing with oxidizing agents like nitric acid also should be avoided for the safety.

Storage

Dry, cool and dark places with ventilation are recommended. Storage container bags or drums should be tightly sealed to prevent intrusion of impurities and drying. At high temperature, degradation of capacity may occur and below freezing temperature, freezing of resin may occur. The freezing may cause physical breakage leading to low whole bead count.

Disposal

There are two ways to dispose of resins. Unused ones could be discarded by landfill or incineration following local regulations with fore-mentioned cautions. For incineration, furnace equipped with suitable safety measures is necessary because toxins such as SO_x, NO_x, CO_x could be generated. Used ones could be landfilled or incinerated as well but poisonous materials like heavy metals, if they are contained, should be removed before resins be discarded.

Packaging

25L PE Bag / 1,000L Ton bag

Hydrolux Technology Co., Ltd.

We are experts on liquid purification

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