

# HYDROLUX<sup>®</sup> 650SC H

## Descriptions

**HYDROLUX<sup>®</sup> 650SC H** is a high crosslinkage uniform beads strongly acidic cation exchange resin (Gel Type). It has styrene-divinylbenzene copolymer with sulfonic acid functional group

**HYDROLUX<sup>®</sup> 650SC H** comprise of beads within  $650\pm 50 \mu\text{m}$  of particle size. This property of mono-dispersed particle distribution allows operators of resin to use it in more superior conditions such as fast diffusion time, mechanical/chemical stability and better effluent quality.

**HYDROLUX<sup>®</sup> 650SC H** designed specifically for use in mixed beds. It is ideally suited to the high flow rate demands of condensate polishing applications. The bead size uniformity is tailored to complement the smaller, less dense **HYDROLUX<sup>®</sup> 550SA OH** Anion Resin. Together, these resins offer near perfect separation in mixed beds.

## Specification

Type	Strongly Acidic Cation
Matrix	Polystyrene + DVB(Divinyl Benzene)
Functional Group	R-SO <sub>3</sub> <sup>-</sup>
Ionic Form	H <sup>+</sup>
Shipping Weight (g/L)	790± 5%
Specific Gravity	1.24 approx.
Total Capacity (eq/L)	2.1↑
Moisture Contents (%)	47 ± 5
Uniformity Coefficient	≤ 1.1
Particle Size (mm)	0.65 ± 0.05
Whole Perfect Beads (%)	95
Maximum Swelling	H <sup>+</sup> / Na <sup>+</sup> = 1.08
Operating Temp	120°C
Operating pH Range	0~14

## Operating Data

Maximum Temperature	120 °C
pH Range	0~14
Minimum Bed Depth	800 mm
Velocity	120 m/h (max.)
Pressure Drop	150 kPa (max.)

Backwash Flow Rate	
Flow at 50% Expansion, Ca <sup>+</sup> Form	14 m/h at 25 °C
Flow at 80% Expansion, Ca <sup>+</sup> Form	26 m/h at 25 °C

Regeneration	
Regenerant	HCl
Regenerant Level	50~150 g/L-R
Concentration	2~10%
Flow Rate	5 m/h
Rinse Water Flow Rate	5 m/h
Rinse Water requirement	5 BV

Regenerant	H <sub>2</sub> SO <sub>4</sub>
Regenerant Level	80~200 g/L-R
Concentration	1~6%
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<sub>x</sub>, NO<sub>x</sub>, CO<sub>x</sub> 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 / 1,000 L Ton Bag

**Hydrolux Technology Co., Ltd.**  
*We are experts on liquid purification*

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