

HYDROLUX[®] CP228

Weakly Acidic Cation Resin Macroporous Type

Descriptions

HYDROLUX[®] CP228 is a food grade new macroporous type ion exchange resin with chelating group for the selective removal of alkaline earth cations. It is suitable for the adsorption of earth alkali ions in the presence of alkali ions.

HYDROLUX[®] CP228 comprise of beads within 600~700 μm of particle size. This property allows operators of resin to use it in more superior conditions such as fast diffusion time, high operating capacity, mechanical/chemical stability and better effluent quality.

HYDROLUX[®] CP228 is especially suitable for use in final polishing of brine feed to chloralkali membrane cells (traces of alkaline earth ions are removed after their normal precipitation by carbonates in the pH range 8-11) in the presence of iron (III) ions and in case Sr^{++} and Ba^{++} has also to be removed besides of Ca^{++} and Mg^{++} .

HYDROLUX[®] CP228 major application is in brine purification. It also can be used for the removal or recovery of heavy metals out of process for waste water and potable water streams. Thereby it removes heavy metal cations from neutralized aqueous solutions in the following order:

$\text{Cu}^{++} > \text{VO}^{++} > \text{UO}_2^{++} > \text{Pb}^{++} > \text{Ni}^{++} > \text{Zn}^{++} > \text{Cd}^{++} > \text{Fe}^{++} > \text{Be}^{++} > \text{Mn}^{++} > \text{Ca}^{++} > \text{Mg}^{++} > \text{Sr}^{++} > \text{Ba}^{++} > \text{Na}^+$.

HYDROLUX[®] CP228 is certified by TFDA (Taiwan Food and Drug Administration) for Food Additives, and assure compliance with the TFDA Food safety and sanitation regulations.

The certificate no. is 衛部添製字第 002837 號

Specification

Matrix	Polystyrene + DVB (Divinyl Benzene)
Ionic Form	Na ⁺
Shipping Weight (g/L)	740 ± 5%
Specific gravity (g/ml)	1.16 approx.
Total Capacity (eq/L)	2.6 ↑ (H ⁺ form)
Moisture Retention (%)	61 ± 5
Particle Size (mm)	0.6~0.7
Whole Prefect Beads (%)	95 min
Maximum Swelling	Na ⁺ / H ⁺ = 0.70
Operating Temp	80°C max
Operating pH	2 ~ 12

Suggested Operating Data

Maximum Temperature	80 °C
pH Range	2~12
Minimum Bed Depth	1000 mm
Service Flow Rate	5-25 BV/h
Velocity	30 m/h (max.)
Pressure Drop	250 kPa (max.)

Backwash Flow Rate	
Flow at 50% Expansion, Na+ Form	10 m/h at 20 °C
Flow at 80% Expansion, Na+ Form	16 m/h at 20 °C

Regeneration	
Regenerant	HCl
Regenerant Level	120~160 g/L-R
Concentration	5~10%
Flow Rate	5 m/h
Rinse Water Flow Rate	5 m/h
Rinse Water requirement	5 BV

Conditions	
Regenerant	NaOH
Regenerant Level	80~120 g/L-R
Concentration	4~8%
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 / 200L Drum/ 1,000L Ton bag

Hydrolux Technology Co., Ltd.

We are experts on liquid purification

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