

# HYDROLUX<sup>®</sup> S8288

## Weakly Acidic Cation Resin Macroporous Type

### Descriptions

**HYDROLUX<sup>®</sup> S8288** is a food grade, new macroporous type weakly acidic cation exchange resin with a structure based on an acrylic matrix. The resin shows a very high operating capacity associated to a relatively small volume change in front of monovalent ionic forms. The exchange kinetics and mechanic-osmotic resistance are very good; therefore, this product can be applied in all cases where very high performances in hardness removal from waters, sugars and organic solutions are requested, applying the resin in both hydrogen or monovalent ionic forms. Its composition complies with existing food processing rules and regulations.

**HYDROLUX<sup>®</sup> S8288** is supplied by H<sup>+</sup> form and it is use for softening, decarbonisation and metals removal such as lead or copper of drinking water, brewery water treatment, and in household filter systems.

**HYDROLUX<sup>®</sup> S8288** 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 002839 號

## Specification

|                         |  |
|-------------------------|--|
| Matrix                  | Polyacrylate + DVB (Divinyl Benzene)   |
| Functional Group        | -COOH (Carboxylic acid)  |
| Ionic Form              | H <sup>+</sup>   |
| Shipping Weight (g/L)   | 780  |
| Specific gravity (g/ml) | 1.16 approx.   |
| Total Capacity (eq/L)   | 4.4 ↑  |
| Moisture Retention (%)  | 48 ± 5   |
| Effective Size (mm)     | 0.50   |
| Uniformity Coefficient  | ≤ 1.6  |
| Particle Size (mm)      | 0.425 ~ 1.180  |
| Whole Perfect Beads (%) | 95 min   |
| Maximum Swelling        | Na <sup>+</sup> / H <sup>+</sup> = 1.50<br>Ca <sup>+</sup> / H <sup>+</sup> = 1.10 |
| Operating Temp          | 120°C max  |
| Operating pH            | 4 ~ 14   |

## Operating Data

### A. Suggested operation conditions

Operation pH range : 4~14

Operation Temp. : 120°C max

Minimum Bed depth : 700mm (min)

Service Flow Rate : 50 m/hr (max.)

### B. Recommended regeneration procedure

#### 1) Backwash

Bed depth expansion 50~80% / 10 minutes (min)

#### 2) Regeneration

Regenerant : HCl or H<sub>2</sub>SO<sub>4</sub>

Regenerant concentration : HCl (1~5% w/v), H<sub>2</sub>SO<sub>4</sub> (1% w/w)

Regeneration level : 110% about operating capacity

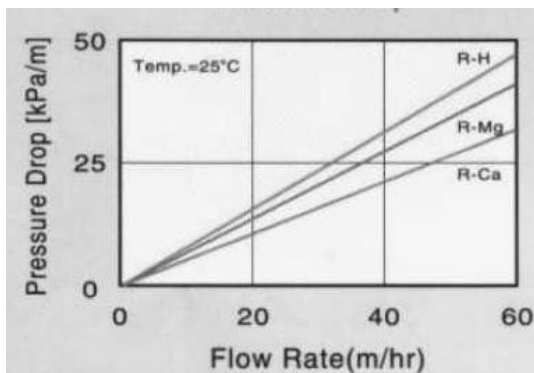


Figure 1. Pressure Drop

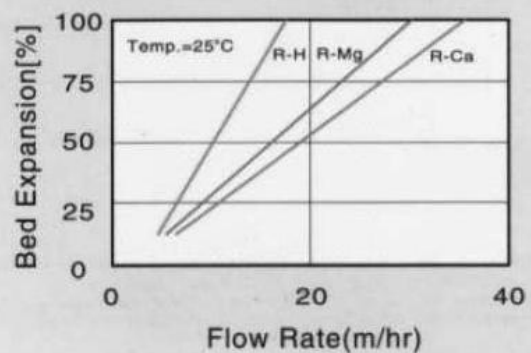


Figure 2. Bed Expansion

## 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 / 1,000L Ton bag

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

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