HYDROLUX

We are experts on liquid purification

HYDROLUX® S1548

Weakly Acidic Cation Resin Macroporous Type

Descriptions

HYDROLUX® S1548 is a weakly acidic cation exchange resin with carboxylic acid groups (-COOH) on a macroporous acrylic copolymer matrix. With its appropriate ratio form, the effluent pH and taste meet drinking water standards. This resin is specifically designed for small cartridge exchangers and drinking water device filter cartridges, and is commonly used in household and community small-scale ion exchange units for the purification of drinking water, domestic water, and food and beverages to improve taste.

HYDROLUX® S1548 features excellent kinetic properties, enabling it to achieve exchange performance within a relatively short time. It exhibits extremely high selectivity for heavy metal ions in aqueous solutions, as well as the capability to exchange and remove trivalent metal ions, making it suitable for removing harmful metal ions from aqueous solutions. The effluent hardness and pH variations are optimized relative to the raw water quality.

Specification

Matrix	Polyacylate + DVB (Divinyl Benzene)
Functional Group	-COOH (Carboxylic acid)
Ionic Form	Mg^{2+}
Shipping Weight (g/L)	820
Specific gravity (g/ml)	1.16 approx.
Total Capacity (eq/L)	3.3 ↑
Moisture Retention (%)	50 ± 5
Effective Size (mm)	0.50
Uniformity Coefficient	≤ 1.6
Particle Size (mm)	0.4 ~ 1.6
Whole Prefect Beads (%)	95 min
Maximum Swelling	Na^+ / H^+ = 1.50 Ca^+ / H^+ = 1.10
Operating Temp	100℃ max
Operating pH	3 ~ 14

Operating Data

A. Suggested operation conditions

Operation pH range : 3~14

Operation Temp. : 100℃ max

Minimum Bed depth : 700mm (min)

Service Flow Rate : 60 BV/hr (max.)

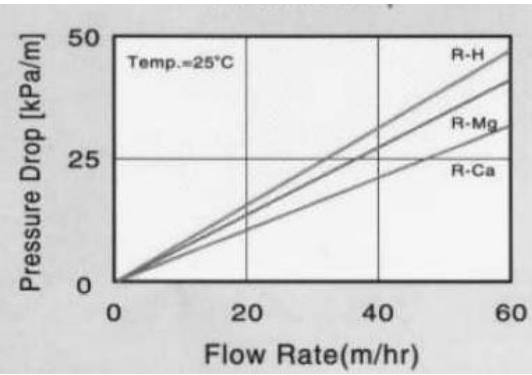

Figure 1. Pressure Drop

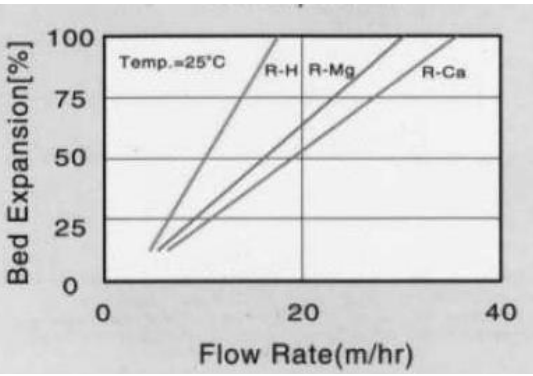

Figure 2. Bed Expansion

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_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

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