

# HYDROLUX® S5458

## Weakly Basic Anion Resin Porous Type

### Descriptions

**HYDROLUX® S5458** is a food grade weakly basic anion exchange resin (Macroporous Type) with uniform particle sized beads.. It has styrene-divinylbenzene copolymer with tertiary amine functional group.

**HYDROLUX® S5458** has high mechanical and chemical strength. It will give you more advantage of getting pure water and high purity products than conventional resin. It also has anti - fouling capacity, which will show outstanding decolorization and demineralization in organic-enrich environment.

**HYDROLUX® S5458** is supplied in free base form. It is use for refinement of starch sugar, dextrose, beet formalin and Glycerin.

**HYDROLUX® S5458** 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 002841 號

## Specification

Type	Weakly Basic Anion Porous Type
Matrix	Polystyrene + DVB (Divinyl Benzene)
Functional Group	Tertiary Amine
Ionic Form	Free Base
Shipping Weight ( g/L)	640
Total Capacity ( eq/L)	1.50 ↑
Moisture Contents (%)	45 ± 5
Uniformity Coefficient	≤ 1.1
Particle Size (mm)	0.55 ± 0.05
Whole Perfect Beads (%)	95 min
Maximum Swelling	Cl <sup>-</sup> / FB = 1.20
Operating Temp	60°C max
Operating pH Range	0~7

## Operating Data

Maximum Temperature ...	60°C
pH Range ....	0~7
Minimum Bed Depth ...	700mm
Service Flow Rate ...	5~60 m/h
Pressure Drop ...	See Figure 2
Backwash Flow Rate ...	See Figure 1
Bed Expansion ...	50~80%
Backwash Time ...	10~20min
Regenerant ....	NaOH
Regenerant Level ...	50~80g/L-R
Concentration ...	2~6%
Flow Rate ....	2~4 BV/h
Regenerant contact Time ...	20 minutes (min.)
Temperature ...	Ambient Temp.
Rinse Water Requirement ...	3~5 BV
Displacement Rinse Rate ...	2~10 BV/h
Fast Rinse Rate ...	16~32 BV/h
Swelling FB to Cl ...	About 20%

Figure 1) Bed expansion (25°C),  $FT = F25^{\circ}C [1E + 0.008(1.8T^{\circ}C - 45)]$

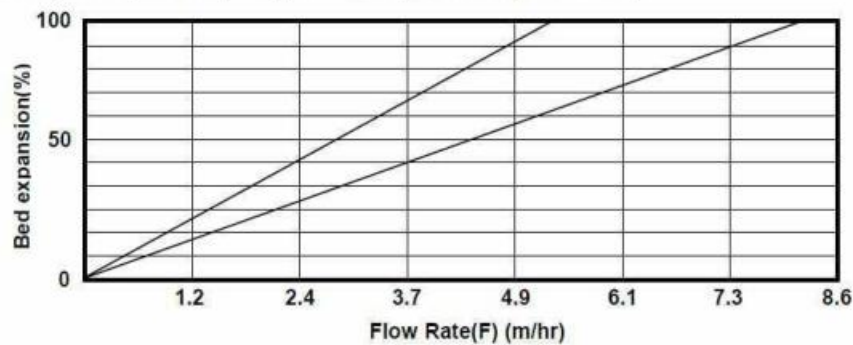
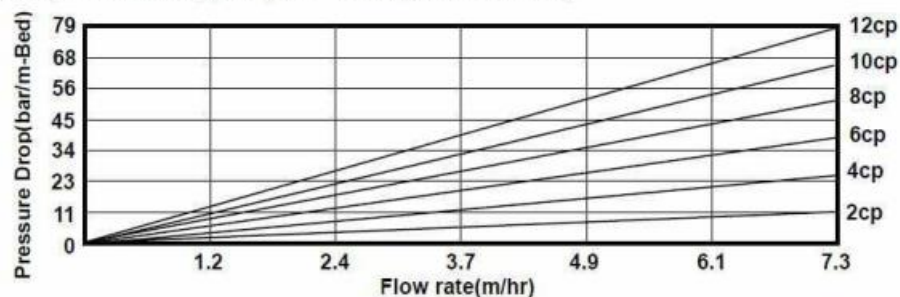


Figure 2) Pressure Drop(20°C),  $PT = P20^{\circ}C / (0.026T^{\circ}C + 0.48)$



## 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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