PRODUCT INFORMATION
LEWATIT® S 1568

Lewatit® S 1568 is a lately developed, strongly acidic cation exchange resin with a uniform bead size distribution, based on a styrene divinylbenzene copolymer. The monodisperse beads are chemically and mechanically very stable. The favourable kinetics allows a distinctly higher operating capacity as this applies to comparable ion exchange resins with a heterodisperse bead size distribution.
A much better total capacity enables long cycle times with a low leakage and economic quantities of regenerants.
Lewatit® S 1568 is very suitable for:

» Softening of aqueous solutions, specially of juices occurring in the production of sugar and pectine
»Decationization of solutions of organic products, e.g. beets, sugar cane, starch sugar, glycerol, gelatin, food grade acids etc.
»the production of amino acids, e.g. lysine

Lewatit® S 1568 provides the resin filling with the following features:
»high exchange capacities in the regeneration and loading processes
»very good utilization of the total capacity
»low demand for wash water
»continuous flow of regeneration agents, water and solutions, equally shaped working zone
»almost linear pressure loss gradient along the whole bed depth, therefore an operation at higher bed depths is possible
»outstanding separation of components in the mixed bed filter.

When using **Lewatit® S 1568** for treating potable water and the a.m. aqueous solutions, you have to follow our recommendations for the start-up which are available on request.

The special properties of this product can only be fully utilized if the technology and process used correspond to the current state-of-the-art. Further advice in this matter can be obtained from Lanxess, Business Unit Ion Exchange Resins.

General Description

Ionic form as shipped	Na^+
Functional group	Sulfonic acid
Matrix	Crosslinked polystyrene
Structure	Gel
Appearance	Dark brown

Physical and Chemical Properties

		metric units	
Uniformity Coefficient*		max.	1.1
Mean bead size*		mm	0.60 (+/- 0.05)
Bulk density	(+/- 5 %)	g/l	830
Density		approx. g/ml	1.28
Water retention		wt. %	42 - 48
Total capacity*		min. eq/l	2.1
Volume change	Na^+ --> H^+	max. vol. %	10
Stability	at pH-range		0 - 14
Storability	of the product	max. years	2
Storability	temperature range	°C	-20 - 40

* Specification values subjected to continuous monitoring.

Recommended Operating Conditions*

		metric units	
Operating temperature		max. °C	120
Operating pH-range			0 - 14
Bed depth		min. mm	800
Specific pressure drop	(15 °C)	approx. kPa*h/m²	1.0
Pressure drop		max. kPa	200
Linear velocity	operation	max. m/h	60
Linear velocity	backwash (20 °C)	approx. m/h	10 - 12
Bed expansion	(20 °C, per m/h)	approx. vol. %	4
Freeboard	backwash (extern / intern)	vol. %	60
Counter current regeneration	level	approx. g/l	HCl 50 H_2SO_4 80 NaCl 90
Counter current regeneration	concentration	wt. %	HCl 4 - 6 H_2SO_4 1.5 - 3** NaCl 8 - 10
Linear velocity	regeneration	approx. m/h	HCl 5 H_2SO_4 10 - 20** NaCl 5
Linear velocity	rinsing	approx. m/h	HCl 5 H_2SO_4 5** NaCl 5
Rinse water requirement	slow / fast	approx. BV	HCl 4 H_2SO_4 4** NaCl 4
Co current regeneration	level	approx. g/l	HCl 100 H_2SO_4 150** NaCl 200
Co current regeneration	concentration	approx. wt. %	HCl 4 - 6 H_2SO_4 1.5 - 3** NaCl 8 - 10

* The recommended operating conditions refer to the use of the product under normal operating conditions. It is based on tests in pilot plants and data obtained from industrial applications. However, additional data are needed to calculate the resin volumes required for ion exchange units. These data are to be found in our Technical Information Sheets.

** Regeneration progressive

Additional Information & Regulations

Safety precautions

Strong oxidants, e.g. nitric acid, can cause violent reactions if they come into contact with ion exchange resins.

Toxicity

The safety data sheet must be observed. It contains additional data on product description, transport, storage, handling, safety and ecology.

Disposal

In the European Community Ion exchange resins have to be disposed, according to the European waste nomenclature which can be accessed on the internet-site of the European Union.

Storage

It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions without exposure to direct sunlight. If resin should become frozen, it should not be mechanically handled and left to thaw out gradually at ambient temperature. It must be completely thawed before handling or use. No attempt should be made to accelerate the thawing process.

LENNTECH
info@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289