

Lewatit® S 1567 is a new developed food grade, strongly acidic cation exchange resin with beads of uniform size (monodisperse) based on a styrene-divinylbenzene copolymer. **Lewatit® S 1567** is manufactured without the use of solvent.

The monodisperse beads are chemically and osmotically very stable, and they can effectively be disinfected for the drinking water processing. The optimized kinetics lead to an increased operating capacity compared to ion exchange resins with heterodisperse bead size distribution.

Lewatit® S 1567 is especially applicable for:

- » softening in special systems with regular disinfection
- » softening of drinking water

Lewatit® S 1567 is adding special features to the resin bed:

- » high exchange flow rates during regeneration and loading
- » a good utilization of the total capacity
- » a low demand for rinse water
- » homogeneous throughput of regenerants, water and solutions; therefore a homogeneous working zone
- » nearly linear pressure drop gradient for the whole bed depth; therefore operation with higher bed depth possible

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 Liquid Purification Technologies (LPT).

General Description

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

Specified Data

	metric units	
Uniformity Coefficient	max.	1.1
Mean bead size	mm	0.60 (+/- 0.05)
Total capacity	min. eq/l	2.0

Physical and Chemical Properties

		metric units	
Bulk density	(+/- 5 %)	g/l	840
Density		approx. g/ml	1.28
Water retention		wt. %	44 - 50
Volume change	Na ⁺ --> H ⁺	max. vol. %	10
Stability	at pH-range		0 - 14
Storability	of the product	max. years	1
Storability	temperature range	°C	-20 - +40

This document contains important information and must be read in its entirety.

Recommended Operating Conditions*

		metric units	
OPERATION			
Operating temperature		max. °C	120
Operating pH-range			0 - 14
Bed depth		min. mm	800
Specific pressure drop	(15 °C)	approx. kPa*h/m ²	1.0
Pressure drop		max. kPa	200
Linear velocity	operation	max. m/h	60
REGENERATION, COUNTER-CURRENT			
Regenerant	type		NaCl
Regenerant	quantity	approx. g/l	70 - 120
Regenerant	concentration	wt. %	8 - 10
Linear velocity	regeneration	approx. m/h	5
Linear velocity	rinsing	approx. m/h	5
Volumetric flow rate	regeneration	BV/h	5
Volumetric flow rate	rinsing, slow / fast	BV/h	5
Rinse water requirement	slow / fast	approx. BV	4
REGENERATION, CO-CURRENT			
Regenerant	type		NaCl
Regenerant	quantity	approx. g/l	200
Regenerant	concentration	approx. wt. %	8 - 10
Linear velocity		approx. m/h	5
Linear velocity	backwash (20 °C)	approx. m/h	10 - 12
Linear velocity	rinsing	approx. m/h	5
Rinse water requirement	slow / fast	approx. BV	4
Bed expansion	(20 °C, per m/h)	approx. vol. %	4
Freeboard	backwash (extern / intern)	vol. %	60

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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.

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Lanxess Deutschland GmbH
BU LPT
D-51369 Leverkusen

www.lpt.lewatit.com
www.lanxess.com

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