

Lewatit® S 1467 is a strongly acidic cation exchange resin with beads of uniform size (monodisperse) based on a styrene-divinylbenzene copolymer. The monodisperse beads are chemically and osmotically very stable. The optimized kinetics lead to an increased operating capacity compared to ion exchange resins with heterodisperse bead size distribution.

Lewatit® S 1467 is especially applicable for:

- » softening of industrial water
- » softening of drinking water

Lewatit® S 1467 is adding special features to the resin bed:

- » high exchange flow rates during regeneration and loading
- » good utilization of the total capacity
- » low rinse water demand
- » 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

Lewatit® S 1467 complies with current German legislation on food and food-contact uses and is chemically in compliance with the FDA regulations 21 CFR 173.25 (a).

Lewatit® S 1467 is in compliance with the European Resolution ResAP (2004)3 (superseding the former Resolution AP (97)1) with regard to Total Organic Carbon (TOC) release according the AFNOR test T 90-601.

When using **Lewatit® S 1467** to treat potable water and the aqueous solutions listed above, special care should be given to the initial cycles of the new resin. Please refer to recommended start-up conditions contained in this data sheet.

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 type beads
Appearance	light brown, translucent

Physical and Chemical Properties

		metric units	
Uniformity coefficient*		max.	1.1
Mean bead size*		mm	0.60 (+/- 0.05)
Share of beads in the range*	Mean bead size +/- 0,05 mm	vol. %	> 80
Bulk density	(+/- 5 %)	g/l	820
Density		approx. g/ml	1.28
Water retention		wt. %	42 - 48
Total capacity*		min. eq/l	2.0
Volume change	Na ⁺ --> H ⁺	max. vol. %	8
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 Start-up Conditions*

(in drinking water and food applications only)

Linear velocity	approx. m/h	5
Rinse water requirement	approx. BV	20

Recommended Operating Conditions*

		metric units	
Operating temperature		max. °C	120
Operating pH-range			0 - 14
Bed depth		min. mm	800
Specific pressure loss	(15 °C)	approx. kPa*h/m ²	1.0
Pressure loss		max. kPa	200
Linear velocity	exhaustion	max. m/h	-
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
Regenerant			NaCl
Counter current regeneration	level	approx. g/l	70 - 120
WS-System	concentration	approx. wt. %	120 - 250
Linear velocity	regeneration	approx. m/h	5
Linear velocity	rinsing	approx. m/h	5
Rinse water requirement	slow / fast	approx. BV	4
Regenerant	concentration	approx. wt. %	8 - 12

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.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact under the claims of any patent.

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