

# LEWATIT® S 1468

---

## Product Information

**Lewatit S 1468** is a strongly acid, gelular cation exchange resin with beads of uniform size (monodisperse) based on a styrene-divinylbenzene copolymer. The monodisperse beads are chemically and osmotically highly stable. The optimized kinetics lead to an increased operating capacity compared to ion exchange resins with heterodisperse bead size distribution.

**Lewatit S 1468** is especially applicable for

- softening of solutions, especially for sugar- and pectin thin juices
- decationisation of sugar solutions and solutions of organic products, e.g. sugar beet, sugar cane, starch sugar, glycerine, gelatine, whey and food acids etc.
- extraction of amino acids, e.g. Lysine

**Lewatit S 1468** is adding special features to the resin bed:

- high exchange flow rates during regeneration and loading •  
good utilization of the total capacity •  
low sweeten-on-, sweeten-off- and 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
- good separation behavior of the components in a mixed bed application

**Lewatit S 1468** 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 1468** is in compliance with the European Resolution AP (97)-1 with the regard to Total Organic Carbon (TOC) release according the ANOR Test (method T90-601).

When using **Lewatit S 1468** 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 the 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 Bayer AG, Business Group Specialty Products, Business Unit Ion Exchange Resins.

# LEWATIT® S 1468

## General Description

Ionic form as, as shipped	Na+
Functional group	sulfonic acid
Matrix	crosslinked polystyrene
Structure	gel type beads
Appearance	light brown, translucent

## Physical and Chemical Properties

Mean bead size	* (AB)	mm	0.6 (+/- 0.05)
Share of beads in the range	* AB +/- 0.05 mm	%	> 90
Bulk density	(+/- 5%)	g/l	820
Density		approx. g/ml	1.28
Water retention		%	42 - 48
Total capacity*	H-form	min. eq/l	2.0
Volume change	Na+ -> H+	approx. %	+ 8
Stability	at pH-range		0 - 14
Storability	of the product	min. years	2
Storability	at temperature	°C	-10 - 40
Standard packaging	25-l-polyethylen bag		

\* These data are specification values and are subject to continuous monitoring.

# LEWATIT® S 1468

## Recommended Operating Conditions\*

Operating temperature		max. °C	120		
Operating pH range			0 - 14		
Bed depth		min. mm	800		
Specific pressure loss	at viscosity 1 mPa	approx. kPa*h/m <sup>2</sup>	1.0		
Max. pressure loss		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. %	4		
Freeboard	as % of resin volume	%	60		
Regenerant			HCl	H2SO4	NaCl
Cocurrent regeneration	level	g/l	100	150	200
Countercurrent regeneratio	level	g/l	50	80	90
Countercurrent regeneratio	concentration	%	4 - 6	1.5 - 3**	8 - 10
Linear velocity	regeneration	approx. m/h	5	10 - 20	5
Linear velocity	rinsing	approx. m/h	5	5	5
Rinse water requirement		approx. BV	4	4	4

## Recommended Start-up Conditions\*

(in drinking water applications only)

Rinsing		DI-water	
Linear velocity		approx. m/h	5
Rinse water requirement		approx. BV	20
Temp. of rinse water		Operating temperature	
Regeneration		with the double normal quantity	
Rinsing		with the double normal quantity	

\* The recommend 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 are to be found in our Technical Information Sheets.

\*\* progressive Regeneration

\*\*\* 100m/h for polishing

# LEWATIT® S 1468

---

## 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

---

A proprietary technical recycling process for used ion exchanger is unknown to us. In the European Community the following possibilities for disposal can be utilized.

Resins used for water treatment and in the sugar industry can be disposed under code number 190 905. Our preference is to recommend disposal in an industrial incinerator.

Ion exchange resins which contain impurities after use in industrial processes, e.g. electroplating, chemicals treatment etc., can be disposed under code number 190 806. A certificate of disposal is required.

®

---

This information and our technical advice – whether verbal, in writing or by way of tests – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not free you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processes of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with our general conditions of sale and delivery.

**LENNTECH**

WATER TREATMENT SOLUTIONS

info@lennotech.com Tel. +31-152-610-900

www.lennotech.com Fax. +31-152-616-289

For more information or a quote, please use the