

Lewatit® ASB 1 is a premium grade, gel, strong base, Type 1, anion exchange resin based on a styrene / DVB polymer. **Lewatit® ASB 1** is especially suited for high purity separate bed, or mixed bed applications, where silica reduction in the final treated water is a critical requirement. **Lewatit® ASB 1** exhibits a high ion exchange capacity combined with excellent mechanical and osmotic strength for a long operating life. **Lewatit® ASB 1** is supplied in a heterodispersed particle size distribution as spherical beads in the fully swollen moist bead form.

Lewatit® ASB 1 is prepared with a minimum amount of fines (-50 mesh particles) resulting in low pressure losses during service.

Lewatit® ASB 1 is supplied in the chloride form. **Lewatit® ASB 1** is also available in the hydroxide form, designated as **Lewatit® ASB 1 OH**.

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	Cl ⁻
Functional group	Quaternary amine
Matrix	DVB / Styrene
Structure	Gel
Appearance	Translucent

Physical and Chemical Properties

		metric units	
Uniformity Coefficient*		max.	1.6
Bead size*		mm	0.3 - 1.25
Effective size		mm	0.54 (+/- 0.06)
Bulk density	(+/- 5 %)	g/l	704
Density		approx. g/ml	1.12
Water retention*		wt. %	43 - 48
Total capacity*		min. eq/l	1.4
Volume change	Cl ⁻ --> OH ⁻	max. vol. %	20
Stability	at pH-range		0 - 14
Stability	temperature range	°C	1 - 71
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	Cl ⁻ / OH ⁻	max. °C	71 / 60
Operating pH-range			0 - 14
Bed depth		min. mm	800
Pressure drop	psi/ft bed	max. kPa	200
Linear velocity	exhaustion	max. m/h	5 - 25+
Bed expansion	backwash (20 °C)	approx. % per m/h	50 - 75
Freeboard	backwash	vol. %	80 - 100
Volumetric flow rate	exhaustion	BV/h	8 - 32+
Regenerant	type		NaCl / NaOH
Regenerant	level	approx. g/l	64 - 240
Regenerant	concentration	approx. wt. %	3 - 10
Linear velocity	regeneration	approx. m/h	1 - 10
Linear velocity	rinse, slow / fast	m/h	1 - 10 / 12 - 25
Volumetric flow rate	regeneration	BV/h	1.5 - 4
Volumetric flow rate	rinse, slow / fast	approx. BV/h	1.5 - 4 / 8 - 32
Rinse water requirement	slow / fast	approx. BV	1 - 2.5 / 3 - 8

* 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.

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.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release 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 processing 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 the current version of our General Conditions of Sale and Delivery.



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For more information or a quote, please use the