

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 resulting in low pressure losses during service.

Lewatit® ASB 1 is supplied in the chloride form. It is also available in its 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 Liquid Purification Technologies.

Common Description

Delivery form	Cl ⁻
Functional group	Quaternary ammonium Type 1
Matrix	Styrenic
Structure	Gel
Appearance	Yellow, translucent

Specified Data

Uniformity coefficient		max.	1.6
Range of size for >90 vol% of all beads		mm	0.3 - 1.25
Effective size	d10	mm	0.49 (+/- 0.07)
Total capacity (delivery form)		min. eq/L	1.4

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	700
Density		approx. g/mL	1.09
Water retention (delivery form)		approx. weight %	43-48
Volume change (Cl ⁻ -OH ⁻)		max. approx. %	20
Stability pH range			0-14
Storage time (after delivery)		max. years	2
Storage temperature range		°C	-20 - +40

Operation

Operating temperature		max. °C	70
Operating pH range	during exhaustion		0-12
Bed depth for single column		min. mm	800
Bed depth per component in mixed bed		min. mm	500
Back wash bed expansion per m/h (20°C)		%	11
Specific pressure loss kPa*h/m ² (15°C)		kPa*h/m ² (15°C)	1
Max. pressure loss during operation		kPa	200
Specific flow rate		max. BV/h	60

Regeneration

NaOH regeneration	concentration	approx. wt. %	2-6
NaOH regeneration	quantity co-current	min. g/L resin	100
NaOH regeneration	quantity counter-current	min. g/L resin	50
Regeneration contact time		min. minutes	20
Slow rinse at regeneration flow rate		min. BV	2
Fast rinse at service flow rate		min. BV	2

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

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.

Packaging

The experience has shown that the packaging stability for reliable resin containment is limited to 24 months under the storage conditions described above. It is therefore recommended to use the product within this time frame; otherwise the packaging condition should be checked regularly.

LENNTECH
WATER TREATMENT SOLUTIONS
info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289

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