PRODUCT INFORMATION
LEWATIT® S 5128

Lewatit® S 5128 is a food grade, gelular, strongly basic anion exchange resin (type I) based on an acryl-divinylbenzene copolymer of a special bead size distribution.

Due to its acrylic structure, **Lewatit® S 5128** stands for effective adsorption and desorption of naturally occuring organic substances. Its very high total capacity and outstanding mechanical stability together with the excellent resistance to osmotic shock makes it unique for all demineralization applications especially if a low silica leakage is required.

Lewatit® S 5128 is especially suitable for:

» the treatment and demineralization of process water used in the food industry
» the removal of organic matters (NOM), specially from surface water

In case **Lewatit® S 5128** is used to treat the aqueous solutions mentioned above, a special start-up procedure has to be applied. This information is available upon request.

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	Acrylic
Structure	Gel
Appearance	Ivory, opaque

Specified Data

Uniformity coefficient		max.	1.8
Effective size	d10	mm	0.50-0.75
Fines	less than 0.315 mm	max. vol %	0.5
Total capacity (delivery form)		min. eq/L	1.35

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	730
Density		approx. g/mL	1.09
Water retention (delivery form)		approx. weight %	48-55
Volume change (Cl^- -OH^-)		max. approx. %	25
Stability pH range			0-14
Storage time (after delivery)		max. years	2
Storage temperature range		°C	-20 - +40

Operation

Operating temperature		max. °C	30
Operating pH range	during exhaustion		0-12
Bed depth for single column		min. mm	800
Back wash bed expansion per m/h (20°C)		%	10
Specific pressure loss kPa*h/m^2 (15°C)		kPa*h/m^2 (15°C)	1.1
Max. pressure loss during operation		kPa	150
Specific flow rate		max. BV/h	5
Freeboard	during backwash	min. vol. %	80-100

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	70
Regeneration contact time		min. minutes	20
Slow rinse at regeneration flow rate		min. BV	4
Fast rinse at service flow rate		min. BV	8

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@lenntech.com Tel. +31-152-610-900
www.lenntech.com Fax. +31-152-616-289