

PRELIMINARY PRODUCT INFORMATION

Lewatit® TP 107 is a strongly basic, macroporous anion exchange resin based on a crosslinked polyacrylate. It is supplied in a heterodisperse particle size distribution. Compared with conventional anion exchange resins it reveals exceptional operating capacities for trace contaminant removal from potable water, groundwater and wastewater.

Lewatit® TP 107 is particularly suitable for:

- The removal of chromate (hexavalent chromium, Cr(VI))
- The capture of anionic uranium species (uranylsulphato and uranylcarbonato complexes)
- The adsorption of multivalent oxyanions

In case **Lewatit® TP 107** is used for potable water treatment a special start-up procedure has to be applied which is available upon request. Country specific potable water approval certificates can be received as manufacturer's declaration.

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
Matrix	Acrylic
Structure	Macroporous
Appearance	Yellow, opaque

Specified Data

Uniformity coefficient		max.	1.7
Effective size	d10	mm	0.49-0.65
Fines	less than 0.315 mm	max. vol %	1
Total capacity (delivery form)		min. eq/L	2.4

Note: The values given in this paragraph are preliminary and can be subject to adjustments.

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 10%)	g/L	740
Water retention (delivery form)		approx. weight %	30-42
Volume change (Cl ⁻ -OH ⁻)		max. approx. %	15
Stability pH range			0-14
Stability temperature range		°C	1-40
Storage time (after delivery)		max. years	2
Storage temperature range		°C	-20 - +40

Note: The values given in this paragraph are preliminary and can be subject to adjustments.

Operation

Operating temperature		max. °C	40
Bed depth for single column		min. mm	800
Specific pressure loss kPa*h/m ² (15°C)		kPa*h/m ² (15°C)	1.0
Max. pressure loss during operation		kPa	250
Specific flow rate		max. BV/h	5-30
Freeboard	during backwash	min. vol. %	80

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.

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