

Lewatit® MonoPlus M 800 is a strongly basic, gelular anion exchange resin with beads of uniform size (monodisperse) based on a styrene-divinylbenzene copolymer. Chemically and osmotically considered, the monodisperse beads are highly stable. The optimized kinetics lead to an increased operating capacity compared to ion exchange resins with heterodisperse bead size distribution. **Lewatit® MonoPlus M 800** is especially applicable for: » conventional mixed bed application in combination with **Lewatit® MonoPlus S 108 H, Lewatit® MonoPlus**

S 200 H

» polishing by a modern Lewatit® Multistep System » condensate polishing in combination with **Lewatit® MonoPlus S 200 H or KR** and also **Lewatit®**

MonoPlus S 215 KR

Lewatit® MonoPlus M 800 adds special features to the resin bed: » high exchange flow rates during regeneration and loading » good utilization of the total capacity » low rinse water demand » homogenous throughput of regenerants, water and solutions; therefore a homogeneous working zone » nearly linear pressure drop gradient for the whole bed depth; therefore an operation with higher bed depth possible » good separation behavior of the components in a mixed bed application

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.

PRODUCT INFORMATION

LEWATIT[®] MonoPlus M 800



Common Description

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

Specified Data

Uniformity coefficient		max.	1.1
Mean bead size	d50	mm	0.60 (+/-0.05)
Total capacity (delivery form)		min. eq/L	1.4

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

Typical Physical and Chemical Properties

Bulk density for shipment	(+/-	g/L	670
Density	5%)	approx. g/mL	1.08
Water retention (delivery form)		approx. weight %	43-48
Volume change (Cl- -OH-)		max. approx. %	22
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)		%	10
Specific pressure loss kPa*h/m2 (15°C)		kPa*h/m2 (15°C)	1
Max. pressure loss during operation		kPa	250
Specific flow rate		max. BV/h	100

Regeneration

NaOH regeneration	concentration	quantity	approx. wt. %	2-6
NaOH regeneration	co-current	quantity	min. g/L resin	100
NaOH regeneration	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

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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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