

**Lewatit® MonoPlus M 500 MB** is a strongly basic, gelular anion exchange resin with beads of uniform size (monodisperse) based on a styrene-divinylbenzene copolymer. Due to the monodisperse bead size distribution and a special manufacturing process this resin type is tailor-made for mixed bed application in make-up water systems. The resin has been optimized regarding a regeneration efficiency paired with an improved rinse characteristic.

**Lewatit® MonoPlus M 500 MB** is especially applicable for:

» mixed bed application in combination with **Lewatit® MonoPlus S 108 H**

**Lewatit® MonoPlus M 500 MB** is adding special features to the resin bed:

- » a special bead size distribution ensuring a perfect separation of resin components without cross-contamination
- » a good utilization of the total capacity
- » a low rinse water demand
- » homogenous throughput of regenerants, water and solutions; therefore a homogenous working zone
- » sharply contrasting colours

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 <sup>-</sup>
Functional group	Quaternary ammonium Type 1
Matrix	Styrenic
Structure	Gel
Appearance	Yellow, translucent

## Specified Data

Uniformity coefficient		max.	1.1
Mean bead size	d50	mm	0.62 (+-0.05)
Total capacity (delivery form)		min. eq/L	1.3

## Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	690
Density		approx. g/mL	1.08
Water retention (delivery form)		approx. weight %	48-55
Volume change (Cl <sup>-</sup> -OH <sup>-</sup> )		max. approx. %	24
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 <sup>2</sup> (15°C)		kPa*h/m <sup>2</sup> (15°C)	1
Max. pressure loss during operation		kPa	200
Specific flow rate		max. BV/h	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	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.

  
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