

**Lewatit® DW 630** is a macroporous, monodisperse, polystyrene-based strongly basic anion exchange resin (type I). The resin has been thoroughly washed with sulfuric acid and water to assure potable water purity grade.

**Lewatit® DW 630** will not significantly exchange any major water constituents ( $\text{Cl}^-$ ,  $\text{HCO}_3^-$ ,  $\text{NO}_3^-$ ) because it is loaded with sulphate, which has the highest selectivity among these anions. Therefore the water composition will not be changed except the removal of target impurities.

On account of its fast kinetics, high total capacity, good chemical stability, osmotic properties and porosity **Lewatit® DW 630** is especially suitable for:

- removal of natural sulfate and carbonate complexes of uranium from potable water safely below rest concentrations below 10 ppb
- removal of natural organic matter (NOM) such as humic acids, fulvic acids, organic building blocks, carboxylic acids from potable water

Potable water approval certifications are country specific and available as manufacturer's declaration upon request.

In case **Lewatit® DW 630** is used for potable water treatment 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	Sulfate
Functional group	Quarternary amine, type 1
Matrix	Styrenic
Structure	Macroporous
Appearance	Beige, opaque

## Specified Data

Uniformity coefficient		max.	1.1
Mean bead size	d50	mm	0.51 (+/- 0.05)
Total capacity (delivery form)		min. eq/L	1.1

## Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	650
Density		approx. g/mL	1.1
Water retention (delivery form)		approx. weight %	58-63
Volume change (during exhaustion)		max. approx. %	16
Stability pH range			0-14
Stability temperature range		°C	1-80
Storability (from the time of delivery)		max. years	2
Storability temperature range		°C	-20 - +40

## Operation

Operating temperature		max. °C	80
Operating pH range	during exhaustion		6-8
Bed depth for single column		min. mm	1000
Back wash bed expansion per m/h (20°C)		%	40
Specific pressure loss kPa*h/m <sup>2</sup> (15°C)		kPa*h/m <sup>2</sup> (15°C)	0.75
Max. pressure loss during operation		kPa	300
Specific flow rate		max. BV/h	5-50
Freeboard	during backwash	min. vol. %	80-100

## Regeneration

H <sub>2</sub> SO <sub>4</sub> regeneration	concentration	approx. wt. %	10
H <sub>2</sub> SO <sub>4</sub> regeneration	quantity co-current	min. g/L resin	250-350
NaCl regeneration	concentration	approx. wt. %	8-12
NaCl regeneration	quantity co-current	min. g/L resin	150-350
NaCl regeneration	quantity counter-current	min. g/L resin	100-200
Regeneration contact time		min. minutes	30
Slow rinse at regeneration flow rate		min. BV	5-10
Fast rinse at service flow rate		min. BV	10-20

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.

This information and our technical advice – whether verbal, in writing or by way of trials – are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

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