

PRODUCT INFORMATION LEWATIT® UltraPure 1292 MD

For the production of high-purity water ($> 18 \text{ MOhm}\cdot\text{cm}$ at $25 \text{ }^\circ\text{C}$) as non-regenerable mixed bed.

Lewatit® UltraPure 1292 is a ready-to-use mixed bed comprising strongly acidic cation (SAC) and strongly basic (type I) gelular anion (SBA) exchanger. Both components are highly regenerated and specially cleaned in order to meet the specifications for highly purified water such as low TOC release, low ion leaching and high operating capacity for one-use applications.

The mixture is adjusted corresponding to the total capacity of the individual components to an equivalent ratio of 1:1.

Because of their excellent hydrodynamic properties, Lewatit® UltraPure resins allow particularly high flow rates. The extremely high monodispersity (uniformity coefficient: max. 1.1) and very low fines content result in particularly low pressure losses compared with standard resins.

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 Ion Exchange Resins.

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

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General Description

Ionic form as shipped	H ⁺ /OH ⁻
Functional group	sulfonic acid/quat. amine
Matrix	crosslinked polystyrene
Structure	gel type beads
Appearance	brown, translucent

Physical and Chemical Properties

		metric units	
Uniformity Coefficient*		max.	SBA: max. 1.1 SAC: max. 1.1
Mean bead size*		mm	SBA: 0.64 (+/- 0.05) SAC: 0.60 (+/- 0.05)
Bulk density	(+/- 5 %)	g/l	750
Water retention*		wt. %	SBA: 55 - 65 SAC: 45 - 55
Total capacity*		min. eq/l	SBA OH ⁻ 1.1 SAC H ⁺ 2.1
Mixing ratio*		vol. %	SBA: 58 - 62 SAC: 38 - 42
Volume change	H ⁺ /OH ⁻ → Ca, Mg/Cl, SO ₄	max. vol. %	- 15
Storability	of the product	max. months	6
Storability	temperature range	°C	-20 - 40
TOC leakage	after 20 BV	max. ppb	20
Resistivity effluent*	after 80 BV	min. MOhm*cm	18.0 (+/- 0.05)

* Specification values subjected to continuous monitoring.

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Recommended Operating Conditions*

	metric units	
Operating temperature	max. °C	40
Operating pH-range		0 - 14
Bed depth	min. mm	600
Specific pressure drop (15 °C)	approx. kPa*h/m ²	1.5
Pressure drop	max. kPa	150
Specific flow rate exhaustion	max. BV/h	8 - 48

* The recommended operating conditions refer to the use of the product under normal operating conditions. It is based on tests in pilot plants and data obtained from industrial applications. However, additional data are needed to calculate the resin volumes required for ion exchange units. These data are to be found in our Technical Information Sheets.

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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.

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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