PRODUCT INFORMATION
LEWATIT® UltraPure 1294 MD

For the production of ultra-high-purity water (> 18 MOhm*cm at 25 °C) as non-regenerable mixed bed.

Lewatit® UltraPure 1294 MD is a ready-to-use mixed bed comprising gelular strongly acidic cation (SAC) and strongly basic (type I) anion (SBA) exchange resin. Both components are highly regenerated and specially cleaned in order to meet the specifications for highly purified water such as minimum TOC release, low ion leaching and high operating capacity.

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

The extremely high monodispersity (uniformity coefficient: 1.1) and the very low content of fines (< 0.315 mm: max. 0.1 %) results in particulary low pressure losses compared to 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.

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: 1.1 SAC: 1.1
Mean bead size*		mm	SBA: 0.60 (+/- 0.07) 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	3
Storability	temperature range	°C	-20 - 40
TOC release*(a. 80 BV)		max. ppb	1.5
Resistivity effluent*	after 20 BV	MOhm*cm	18.2 (+/- 0,05)

* Specification values subjected to continuous monitoring.

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/m²	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.

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.

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