PRODUCT INFORMATION LEWATIT® MDS 1368 Ca 350



Lewatit® MDS 1368 Ca 350 is a Food grade, strongly acidic, gelular cation exchange resin based on a styrene/divinylbenzene-copolymer.

Lewatit® MDS 1368 Ca 350 is a bead-shaped monodisperse resin. Due to its fine bead size it is specially suitable for chromatographic separation processes, e.g.

» separation of glucose and fructose

When using **Lewatit**® **MDS 1368 Ca 350** to treat potable water and the aqueous solutions listed above, special care should be given to the initial cycles of the new resin. Please refer to the recommended start-up conditions available on 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 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	Ca ²⁺
Functional group	sulfonic acid
Matrix	crosslinked polystyrene
Structure	gel-type
Appearance	light brown, translucent

Physical and Chemical Properties

		metric units			
Uniformity Coefficient*	•	max.		1.1	
Mean bead size*		mm	0.33	-	0.36
Bulk density	(+/- 5 %)	g/l		850	
Density		approx. g/ml		1.28	
Water retention		wt. %	46	-	51
Total capacity*		min. eq/l		1.8	
Volume change	Ca ²⁺ > H ⁺	max. vol. %		15	
Stability	at pH-range		0	-	14
Stability	temperature range	$^{\circ}$	-20	-	120
Storability	of the product	max. years		2	
Storability	temperature range	∞	-20	-	40

^{*} Specification values subjected to continuous monitoring.

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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.

Recommended Operating Conditions*

		metric units	
Operating temperature		max. ℃	100
Operating pH-range			0 - 14
Bed depth		min. mm	800
Specific pressure drop	at viscosity 1 mPa*s	approx. kPa*h/m²	3.5
Pressure drop		max. kPa	200
Linear velocity	backwash (20 °C)	approx. m/h	10
Bed expansion	(20 °C, per m/h)	approx. vol. %	8
Freeboard	backwash (extern / intern)	vol. %	80 - 100

^{*} 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.

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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