

**Lewatit® K 3433** is a weakly basic, macroporous, palladium-doped, polymer-based resin in spherical bead form.

It is designed to catalytically remove dissolved oxygen from water. A suitable reducing agent such as hydrogen is dissolved in the water to be treated and then passed through a bed of the catalyst.

By this method, residual oxygen concentrations of less than 20 ppb can be obtained at flow rates up to 80 m/h and temperatures up to 120 °C.

**Lewatit® K 3433** is designed for the following applications:

- » removal of dissolved oxygen from water for drinks production
- » removal of dissolved oxygen from sea water used in offshore oilfield injection
- » for oxygen removal from boiler feed water and heating circuits

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	free base / Pd
Functional group	tertiary amine
Matrix	crosslinked polystyrene
Structure	macroporous
Appearance	grey opaque

## Physical and Chemical Properties

		metric units	
Uniformity Coefficient*		max.	1.6
Bead size*	> 90 %	mm	0.4 - 1.2 5
Effective size*		mm	0.5 - 0.6 0 0
Bulk density	(+/- 5 %)	g/l	670
Density		approx. g/ml	1.02
Water retention		wt. %	50 - 55
Stability	temperature range	°C	-20 - 120
Storability	of the product	max. years	1
Storability	temperature range	°C	-20 - 40

\* Specification values subjected to continuous monitoring.

### Recommended Operating Conditions\*

		metric units	
Operating pH-range			5 - 14
Bed depth	min. mm		900
Specific pressure drop	(15 °C) approx. kPa*h/m <sup>2</sup>		1.1
Pressure drop	max. kPa		250
Bed expansion	backwash (20 °C) approx. % per m/h		3
Freeboard	backwash (extern / intern) vol. %		1

\* 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

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

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**LENNTECH**

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