

LEWATIT® AF 5 is a microporous activated carbon like adsorber consisting of spherical beads derived from a styrene-divinylbenzene copolymer. The unique manufacturing/activation process results in a small and very uniform pore size which facilitates the selective removal of small polar molecules as well as size exclusion chromatography.

LEWATIT® AF 5 is particularly suitable for the following applications:

- Water treatment: removal of trace amounts of organic substances such as chlorinated hydrocarbons, MTBE, organic phosphates, amines, pesticides and other metabolites
- Removal of organics from electroplating process streams
- Isolation of pharmaceutically active compounds
- Removal of acetic acid from brine

In contrast to activated carbon **LEWATIT® AF 5** offers the following advantages:

- Regenerable without additional activation: the elution is usually carried out with hot water or steam
- Narrow bead size distribution
- Excellent mechanical stability towards abrasion and attrition due to the spherical shape of its particles

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	Neutral
Functional group	None
Matrix	Carbon
Appearance	Black beads

Specified Data

Range of size for >90 vol% of all beads		mm	0.4-0.8
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Typical Physical and Chemical Properties

Bulk density	(+/- 5%)	g/L	550-650
Density		approx. g/mL	1.34
Stability pH range			0-14
Stability temperature range		°C	1-300
Surface BET		approx. m ² /g	1200
Pore volume		approx. cm ³ /g	0.15
Pore diameter		approx. nm	8

Operation

Operating temperature		max. °C	300
Operating pH range	during exhaustion		0-14
Bed depth for single column		min. mm	1000
Max. pressure loss during operation		kPa	250

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.

LENNTECH
WATER TREATMENT SOLUTIONS
info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289

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