PRODUCT INFORMATION
LEWATIT® GF 202

Lewatit® GF 202 is a macroporous cation exchange resin with beads of uniform particle size. The monodispersity imparts excellent kinetics to this mechanically and chemically very robust resin. It has been developed for the removal of glycerine and soaps from biodiesel in fixed beds. After simple preconditioning with 2 BV of methanol it is ready for use. Preconditioning with methanol has the purpose to strip water from the resin.

Features of this resin are:
- High glycerine capacities (at a throughput of 1 to 2 BV/h up to 250 g/l)
- Simultaneous removal of soaps and salts
- Low pressure drop across the bed (40 - 120 kPa)

Benefits of the biodiesel purification based on ion exchange technology instead of the conventional purification by washing with water are:
- No waste water
- Robust and low-cost process
- Regenerant methanol is simply recycled to the transesterification stage

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	sulfonic
Matrix	styrenic
Structure	macroporous
Appearance	beige, opaque

Specified Data

Uniformity coefficient		max.	1.1
Effective size	d10	mm	0.60-0.70

Typical Physical and Chemical Properties

Bulk density for shipment	(+/- 5%)	g/L	740
Density		approx. g/mL	1.24
Water retention (delivery form)		approx. weight %	52-57
Stability temperature range		°C	1-130
Storage temperature range		°C	-20 - +40

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.

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