

ZI-CHEM 7449 Molecular Sieve – Zeolite 3A

HIGHLIGHTS

ZI-CHEM 7449 molecular sieve is a multiple purpose, highly porous, high capacity alkali metal aluminosilicate in the spherical form. It is the potassium form of the Type A crystal structure with pore diameters of approximately 3Å. The 3Å pore opening will allow water to be adsorbed but will exclude unsaturated hydrocarbons and highly polar alcohols such as methanol and ethanol. It has high mass transfer efficiency and durability.

ZI-CHEM 7449 is used for drying of highly polar alcohols such as ethanol and methanol; drying of unsaturated hydrocarbons such as ethylene, propylene, and butadiene; static dehydration of gas or air filled insulated glass units; gas drying; cracked gas drying.

TYPICAL PROPERTIES

Properties	Unit	Bead	
Diameter	Mm	1.6 – 2.5	3 – 5
Static Water adsorption	≥%	21	21
Bulk Density	≥g/ml	0.70	0.68
Crushing Strength	≥N/Pc	25	80
Atrition Rate	≤%	0.1	0.1
Package Moisture	≤%	1.5	1.5

PRIMARY APPLICATIONS

ZI-CHEM 7449 can be regenerated by either heating in the case of thermal swing processes; or by lowering the pressure in the case of pressure swing processes.

To remove moisture from a ZI-CHEM 7449 molecular sieve, a temperature of 200-230°C is required. A properly regenerated molecular sieve can give moisture dew points below -100°C. The outlet concentrations on a pressure swing process will depend on the gas present, and on the conditions of the process.

THE BENEFITS

- High degree of dehydration
- High alcohol recovery
- Low energy consumption
- Low operating costs
- No external chemicals required
- Environmental friendly

TYPICAL APPLICATION

- Drying of unsaturated hydrocarbons
- Cracked gas drying
- Drying of natural gas
- Drying of highly polar compound
- Drying of liquid alcohol

PACKAGING

- 150kg steel drums

HANDLING & SAFETY

ZI-TECHASIA maintains a database of safety data sheets (SDS) on all our products. These contain health & safety information to assist in the safe and appropriate chemical handling, ensuring the protection of personnel.

