



Zhengzhou SnowMountain Industrial Co., Ltd

郑州雪山实业股份有限公司

3A Molecular Sieve

Introduction

3A molecular sieve is an alkali metal aluminosilicate, also called KA molecular sieve or 3A zeolite molecular sieve, mainly used to adsorb water. SNOWPEAK 3A molecular sieve has faster adsorption speed, more regeneration times, higher crushing strength and anti-pollution ability, which can improve utilization efficiency and prolong service life. It's really the preferred desiccant necessary for deep drying, refining and polymerization of gas and liquid in petroleum and chemical industry.

Technical Specification

Type	3A			
Nominal Pore Diameter	3 angstroms			
Chemical Formula	$0.4K_2O \cdot 0.6Na_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot 4.5 H_2O$ ($SiO_2 : Al_2O_3 \approx 2$)			
Shape	Bead		Pellet	
Diameter(mm)	1.6-2.5	3.6-4.8	1/16"	1/8"
Bulk Density(g/ml)	≥ 0.68	≥ 0.65	≥ 0.65	≥ 0.65
Crush Strength(N)	≥ 25	≥ 55	≥ 22	≥ 71
Wear Ratio(%)	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.25
Water Content(%)	≤ 1.5	≤ 1.5	≤ 1.5	≤ 1.5
Static H ₂ O Adsorption(%)	≥ 20	≥ 20	≥ 20.5	≥ 20.5



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Application

Drying of liquids such as ethanol;
Drying of N₂-H₂ mixed gas;
Drying of refrigerants;
Drying of air in insulating glass;
Drying of natural gas and methane gas;
Drying of unsaturated hydrocarbons and cracked gas, ethylene, acetylene, propylene, butadiene

Packing

Iron drum, net weight 125/135/140kg; or according to customer requirements

Storage

Room temperature; indoor humidity no more than 90%; avoid water, acid, alkali; isolate air; sealed preservation

Regeneration

SNOWPEAK 3A molecular sieve can be purged and regenerated by increasing the temperature, regeneration (dehydration) degree depends on the humidity and temperature of the purging gas.

Water removal: Heat dry gas such as nitrogen, air, hydrogen, saturated hydrogen carbide to 150-320°C, then pass it into the molecular sieve bed under the pressure of 0.3-0.5kg/m² for 3-4 hours, and then pass the dry cold gas into the adsorber for 2-3 hours, isolate the air and cool it to room temperature.

Organic removal: Replace the adsorbent from the molecular sieve by water vapor, and then heat. Or pass into hot vapor or inert gas at the in 200-350°C, not use gases that produce explosive mixtures by contact with the adsorbent.

Gas removal: reduce the pressure