



kind of alkali metal silicon aluminate. Compared with ordinary 13X molecular sieve, its adsorption performance is improved by about 50%, and the adsorption effect of N₂O is also more obvious at low partial pressure. 13X type molecular sieve can adsorb the critical

Chemical Formula


$\text{Na}_x[(\text{AlO}_2)_x(\text{SiO}_2)_y] \cdot z\text{H}_2\text{O}$

Regeneration

APG-III molecular sieve can be purged or vacuumed for regeneration and reuse at elevated temperature. The degree of regeneration (dehydration) depends on the humidity and temperature of the purged air.

Packing

APG-III molecular sieve has 8×12 orders, 4 × 8 orders and 6 × 8 orders spherical form. Load and ship in sealed steel drums.

Capacity Of The Drum	Net Weight (KG)	
22gallons (0.083/Cubic meters)	50	
55gallons (0.208/Cubic meters)	135	

Technical Specification

Items	Quality Indicators	
	4 × 8 mesh	8 × 12 mesh
Type Of The Product	4 × 8 mesh	8 × 12 mesh
Nominal Diameter, (A)	10	10
Packing Density , (kg/m ³)	640	640
Grain Diameter , (mm)	3.6-4.5	1.6-2.5
Crushing Resistance, N/ piece	≥80	≥25
Wear Rate, %	≤0.20	≤0.20
Static Water Adsorption *, %	≥29.00	≥29.00
Static Carbon Dioxide Adsorption**, %	≥19.50	≥19.50
Water Content Of Package (at time of shipment), %	≤1.0%	≤1.0%
adsorb molecular	Molecules with effective diameter < 10A	
discharge molecular	The effective diameter of the discharge molecule is >10a, such as(C4F9)3N	

Remarks:

* The number of grams of water adsorbed per 100 g of activated adsorbent at a pressure of 17.5 mm hg and a temperature of 250C. ** The number of grams of carbon dioxide adsorbed per 100 grams of activated adsorbent at 250 mm Hg and 250C

Application

APG-III molecular sieves are used for purifying raw materials with high impurity content in air separation units (removing H₂O, CO₂ and N₂O at the same time), as well as some hydrocarbons.

Any molecule that can be adsorbed on 3A, 4A and 5A molecular sieves can be adsorbed on 13X type. In addition, 13X type can adsorb molecules with larger critical diameters, such as some aromatic hydrocarbons and branched hydrocarbon

