

# MOLECULAR SIEVE 13X(10A)

Molecular sieves are synthetic zeolites (complex aluminosilicates of sodium, potassium or calcium) of various pore sizes. When the water of hydration is driven off which results in an empty network called pores / cavities. Due to their unique crystal structure the cavities and pores are precisely uniform in size which selectively adsorb molecules of a specific size. This strong adsorptive force allows molecular sieves to remove many gas or liquid impurities to ppm or less levels. Our Molecular Sieve exhibits high resistance to attrition and physical damage during service.

The sodium form of 13X(10A) represents the basic structure of the type X family, with an effective pore opening of ~7.2 angstrom which can be stretchable up to ~10 angstrom diameter range.

## Typical Technical Data

Parameter	13X (10A)	13X (10A)
Shape	Spherical Beads	Cylindrical Pellets
Size (mm)	0.5-6.0*	3.0 & 1.5
Bulk Density (kg/lit.)	0.55 - 0.65	
Water Adsorption Capacity @15%RH & 30°C (%)	21.5	
Water Adsorption Capacity @75%RH & 30°C (%)	26.5	
Attrition loss / Abrasion loss (%)	< 0.15	< 0.2
Specific Heat (kcal/kg / °C)	0.23	
Heat Of Adsorption (kcal/kg H <sub>2</sub> O)	1050	
Packing in steel drum (kg)	125-145	

\* A set of size can be selected from the above range. e.g 0.5-2 mm, 1-3 mm, 2-4 mm, 3-5 mm etc.

**Major Applications :** Type 13X is used commercially for general gas drying, air plant feed purification (simultaneous removal of H<sub>2</sub>O and CO<sub>2</sub>) and liquid hydrocarbon and natural gas sweetening (H<sub>2</sub>S and mercaptan removal). All molecules which can not be adsorbed on molecular sieves 3A, 4A and 5A can be adsorbed on Type 13X. In addition, Type 13X can adsorb molecules of larger critical diameters, such as aromatics and branched-chain hydrocarbons.



## ZEOLITES AND ALLIED PRODUCTS

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