



## Technical data sheet (TDS) of 3A Molecular Sieve

### 3A Molecular sieve

3A molecular sieve with a pore size of 3 angstroms, due to the relatively large potassium ions in the molecular structure. This zeolite will adsorb the molecules which have critical diameter less than three angstrom. 3A° molecular sieves readily and reliably provides dry solvents with residual moisture in < 10 ppm range. The method is practical, requires no special apparatus provides a safe method that does not make use of highly reactive materials such as sodium or metal hydrides.

Molecular Sieve 3A is used for dehydration of hydrocarbon streams in liquid phase and vapor phase due to its high drying efficiency and minimizes the interface of hydrocarbon co-adsorption. We produce molecular sieve in elongated cylindrical extrudates with good crush strength and minimum attrition loss.

### Applications:

1. Drying of liquids (specially to remove moisture)
  - a) Ethanol
  - b) Methanol
  - c) Dichloromethane
  - d) Acetonitrile
  - e) Tetrahydrofuran
  - f) Liquids for alkylation and other organic reactions
2. Drying of gases
  - a) Olefins mixtures (cracked gas drying)
  - b) Ethylene
  - c) Propylene
  - d) Carbondioxide
  - e) Acetylene



### General Characteristics of 3A pellets:

Parameter	Value	Unit
Nominal pore opening	3	Angstroms
Pellet size	3.0 and 1.5	mm
Bulk density	0.7-0.8	ml/g
Equilibrium Water Adsorption Capacity at 30° C & 15 % RH	21-22	% Weight
Equilibrium Water Adsorption Capacity at 30° C & 75 % RH	22-24	% Weight
Attrition loss	<0.2	% Weight
Package Moisture	<1.5	% weight