

# TECHNICAL DATA SHEET (TDS)

## MOLECULAR SIEVE TYPE 3A

**3A Molecular Sieve** is a potassium form of aluminosilicate. The Molecular Sieve will adsorb molecules which have a critical diameter less than three angstrom (He, H<sub>2</sub> & CO).

Molecular Sieve 3A is cation exchanged potassium form of A type crystal structure. The potassium ion being larger than sodium ion is effectively exchanged in basic 4A type Molecular Sieve to reduce the pore size to 3 angstrom, and it enables selective adsorption depending upon molecular size.

Molecular Sieve 3A is used for dehydration of hydrocarbon streams in liquid phase or vapour phase due to high drying efficiency, and minimizes the interface of hydrocarbon co-adsorption. Our Molecular Sieve, being spherical in shape produces uniform packing and adsorbate diffusion in the adsorber, also exhibits high resistance to attrition and physical damage during service.

### GENERAL CHARACTERISTICS

Parameter	3A-S		3A-G		3APP	3A PASTE
	Pellets	Beads	Pellets	Beads	Powder	Paste
Shape						
Size (mm)	3.0 & 1.5	0.5 - 6.0	3.0 & 1.5	0.5 - 6.0	2-10 micron	2-10 micron
Bulk Density Kg/ lit	0.75 - 0.85	0.75- 0.85	0.64 -0.70	0.64 -0.70	0.5-0.6	0.95-.012
Water Adsorption Capacity @30 & 4.6 mm of Hg (15% RH) (%)	21.5	21.5	18.0	18.0	22.0	11.0
Water Adsorption capacity 30°C & 23.5 mm of Hg (75%RH) (%)	23.5	23.5	21.0	21.0	24.0	12.0
Attrition/ Abrasion Resistance(%)	< 0.15	< 0.15	< 0.2	< 0.2	----	----

### TYPICAL APPLICATIONS

- Drying of olefines ( Cracked gas drying)
- Liquids for alkylation reaction
- Acetylene
- Ethylene
- Propylene
- Ethanol
- Menthol
- Carbon dioxide
- Insulating Glass

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This information is based on our most recent knowledge. However, the application and processing of the material after sale is beyond our control and we cannot assume responsibility for use of this material outside zeolites & Allied Products Pvt. Ltd. premises. The user is obliged to check the suitability of this material for the intended use and accepts sole responsibility for compliance with any legal requirements relating to its use. This document does not constitute a warranty or guarantee.

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