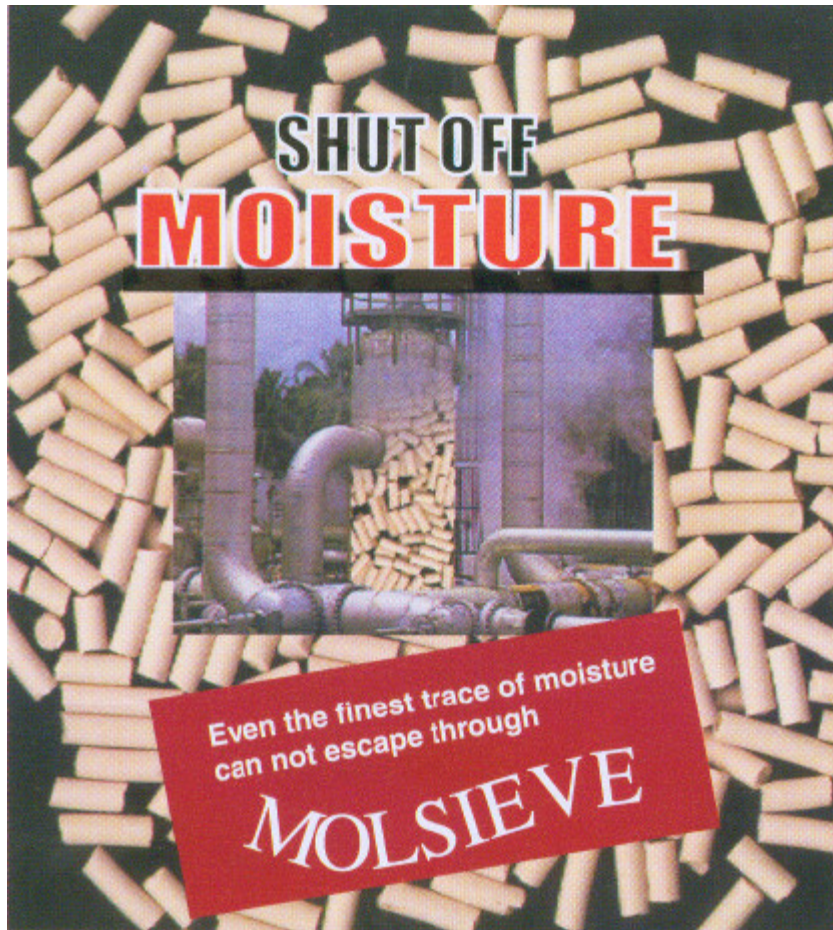


MOLECULAR SIEVES 5A



Molsieve 5A is a crystalline aluminosilicate with SiO_4 to Al_2O_3 as 2:1. It is formed by extensive cross-linking of AlO_4 & SiO_4 tetrahedra, resulting in a uniform pore opening of 0.5 nm. Keeping in mind the customers requirements, our manufacturers manufacture the 5A Molecular Sieve in both extruded pellets & beads form by the state of the art technology in its plant at Mehsana. The products have equal to & in some cases better properties than what have been specified in the Bureau of Indian Standards: BIS 14211 : 1994. Specifically it has very high adsorption capacity, & mechanical strength, & at the same time very low attrition loss. We use

clays from our own mines in the manufacture of this product, ensuring better control & uniformity in the quality of the final product.

Packing:

MOLSIEVE 5A is packed for industrial use in airtight MS drums under hot conditions with proper sealing arrangements so that there is no ingress of moisture during storage & transportation.

Standard Packing: 200/210 Ltr. Drum. **Size:** 570 X 860 mm



Specifications:

Nominal Dia : 5A ^o		1A ^o = 10 ⁻⁸ cm					
Form : Cylindrical pellets & Spheres							
		1.5 mm dia cylindrical pellets		3.0 mm dia Cylindrical Pellets		2-4 mm spheres	
	Unit	Range	Typical	Range	Typical	Range	Typical
Equilibrium Water Adsorption Capacity at 30 deg.C							
15% RH	% w/w	18-22	20.5	18-22	20.5	18.0-22.0	20.0
75% RH	% w/w	21-25	23.0	22-25	24.0	21.0-25.0	24.0
Thermal Stability after 600 Deg.C Equilibrium Water Adsorption Capacity at 30 Deg.C & 15% RH	% w/w	18-22	20.5	18-22	20.5	18.0-22.0	20.0
Crushing Stength (Active)	Kg.	3.0-7.0	4.0	8-15	10.0	3.0-8.0	5.0
CO ₂ Ads. Capacity 760 mm Hg. at 30 Deg.C	% w/w	18-22	20.5	18-22	20.5	18.0-22.0	20.0
Attrition Loss on Tumbling	% w/w	0.02-0.2	0.1	0.02-0.3	0.2	0.02-0.3	0.1
Free Moisture (Max.)	% w/w	-	1.5	-	1.5	-	1.5
Bulk Density	gms/cc	0.73-0.83	0.76	0.73-0.83	0.76	0.75-0.85	0.81
Bed Crushing Strength	% w/w	80-90	84.0	80-90	86.0	80-90	85.0

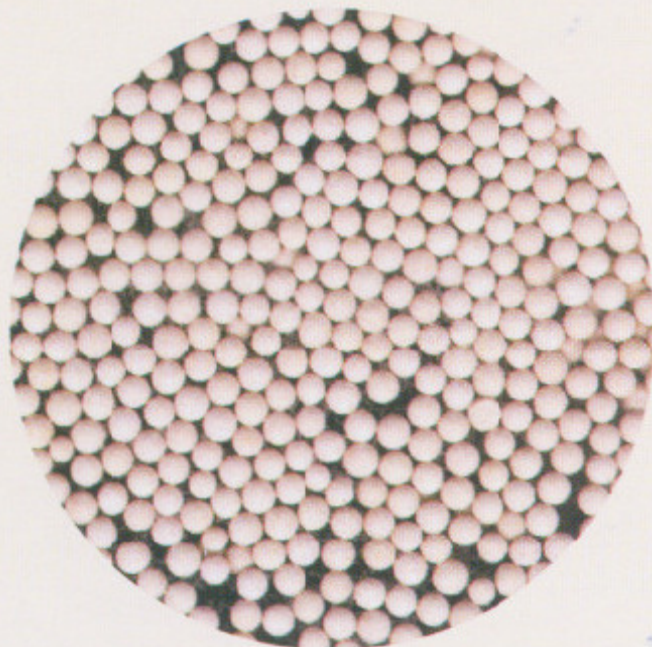
Life:

MOLSIEVES 5A has infinite shelf life, when stored in packed conditions. The active service life would however depend on the operating conditions of the plant, actual application & the usage by the customer.





▲ MOLSIEVE 5A in pellets form



▲ MOLSIEVE 5A in Spheres form

Loading:

MOLSIEVE 5A does not require any special precaution or procedure during loading. However, the health of the grid support is to be checked, & the vessel is to be cleaned of dust, foreign particles, etc. before the adsorbent is loaded. During actual loading, the material should be poured carefully through funnel & chute so as to avoid dusting & attrition. The drums should not be kept in open condition, as the adsorbent would adsorb moisture. In case of prolonged exposure of the adsorbent to moisture during storage / loading, it may require prolonged regeneration at higher temperature to restore its full adsorptive capacity.

Material Safety Data:

The product as such is neither flammable nor toxic. Over all, it is not hazardous. Repeated exposure may irritate skin, eyes & respiratory system. The product gets hot as it is first exposed to atmosphere due to adsorption of moisture.

Regeneration:

MOLSIEVES 5A should be regenerated thermally or by evacuation with simultaneous purge. For thermal regeneration, the adsorbent may be heated to 200 - 300 °C to remove water. The regeneration temperature depends on the type, condition & content of the adsorbate.



Applications:

1. Removal of traces of methanol & CO₂ from N₂ stream in Nitrogen wash unit in Fertilizer plant.
2. Removal of H₂O, CO₂, H₂S & mercaptans from liquefied natural gas.
3. Drying or purification of inert gases.
4. Oxygen air enrichment with concentration of O₂ upto 93%.
5. Purification & enrichment of H₂ from 60% to 98% & above.

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