

MOLECULAR SIEVES 13X - LTG



Molecular sieves 13X – LTG are crystalline aluminosilicate with SiO_2 , Al_2O_3 as 2:1. It is formed by an extensive cross-linking of AlO_4 & SiO_4 tetrahedra, resulting in a uniform pore opening of 1.0 nm. Our manufacturers manufacture 13X LTG molecular sieves in the form of extruded pellets & spheres by the state of the art technology plant in Mehsana (Gujarat). The products comfortably conform to the specifications specified in the Bureau of Indian Standards : BIS 14211 : 1994. We use clays from our own mines in the manufacture of this product, ensuring better control & uniformity in the quality of the

final product.

The micro – porous crystalline structure of 13X LTG, coupled with selective adsorptivity, high adsorption capacity & ability to be regenerated at substantially low temperatures, makes them especially attractive for Air Separation Units designed for low energy consumption.

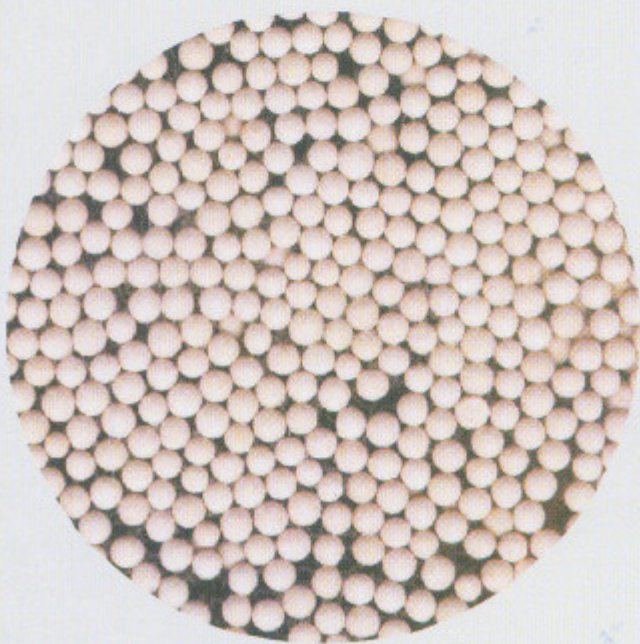
Packing:

MOLSIEVE 13X - LTG 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.





▲ MOLSIEVE 13X-LTG in pellets form



▲ MOLSIEVE 13X-LTG in Spheres form

Life:

MOLSIEVE 13X – LTG has infinite shelf life, when stored in packed condition. The active service life would depend, however on the operating conditions of the plant, actual application & the usage by the customer.

Loading:

MOLSIEVE 13X – LTG 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.



Specifications:

Nominal Dia :10A ^o		1A ^o = 10 ⁻⁸ cm					
Form : Cylindrical pettets & Spheres							
		1.5 mm dia cylindrical pellets		3.0 mm dia Cylindrical Pellets		2-4 mm spheres	
	Unit	Range	Typical	Range	Typical	Range	
Equilibrium Water Adsorption Capacity at 30 deg.C							
15% RH	% w/w	21.5-26	22.5	21.5-26	23.0	23.0-27	25.5
75% RH	% w/w	24-29.5	27.5	24-29	27.5	26-29.5	28.0
Thermal Stability after 600 Deg.C Equilibrium Water Adsorption Capacity at 30 Deg.C & 15% RH	% w/w	21.5-26	22.5	21.5-26	23.0	23.0-270	25.5
CO ₂ Ads. Capacity under 760 mm Hg. & at 30 Deg.C	% w/w	19.0-21.5	20.5	19.0-21.5	20.5	20-25	22.5
Crushing Stength (Active)	Kg.	3.0-7.0	5.0	6-12	8.0	3-7	4.5
Attrition Loss on Tumbling	% w/w	0.02-0.15	01	0.02-0.25	0.15	0.02-0.25	0.1
Free Moisture (Max.)	% w/w	1.5	-	1.5	-	1.5	-
Bulk Density	gms/cc	0.58-0.64	0.6	0.58-0.64	0.6	0.64-0.7	0.66
Bed Crushing Strength	% w/w	80-90	84.0	80-90	86.0	80-90	85.0



Regeneration:

MOLSIEVE 13X - LTG should be regenerated thermally or by evacuation with simultaneous purge. For thermal regeneration, the adsorbent may be heated to 110° to 120 °C for removal of CO₂. for simultaneous removal of H₂O & CO₂, the adsorbent should be heated to 100° - 200 °C. However, the exact regeneration condition (temperature, purge gas flow, etc.) depends on the application, feed quality & other operating conditions.

Applications:

1. Simultaneous removal of moisture & CO₂ from feed air or Air Separation / Cryogenic Plant.
2. Mercaptans removal from gaseous streams.
3. Process air drying of dew point less than -60 °C for sulphonation plants.
4. Sweetening of natural gas.
5. Removal of H₂S from gaseous streams.

Office:

ADCHEMS SPECIALITIES,
Ram Reddy Building,
Room No 2, 1st Floor,
New Temple Road, B Chennasandra,
Banaswadi Post,
Bangalore – 560043.

Tel: 080-42092128

Cell: +91-9972598497, +91-9945401511.

Email: sales@adchems.com , mathewmathew18@gmail.com

