MOLSIEVE 13X-LTG®

Molecular Sieves 13X-LTG are crystalline alumino silicate with SiO2, Al2O3 as 2:1. It is formed by an extensive cross-linking of AlO4 and SiO4 tetrahedra, resulting in a uniform pore opening of 1.0 nm. GMGB manufactures 13X-LTG molecular sieves in the form of extruded pellets and spheres by the State of the Art technology in its plant at Mehsana (Gujarat-India). The products comfortably conform to the Specifications Specified in the Bureau of Indian Standards : BIS 14211:1994. GMGB uses clays from its own mines in the manufacture of this product, ensuring better control and uniformity in the quality of the final product.

The micro-porous crystalline structure of 13X-LTG coupled with selective adsorptivity, high adsoprtion capacity and ability to be regenerated at substantially lower tempeture, makes them especial attractive for Air Separation Units designed for low energy consumption.

Specifications

GMGB Molsieve 13X-LTG

Nominal Dia : 10A°				(1 A° = 10^{-8} cm)
Form : Cylindrical Pallets and Spheres				
Sr. NO	PHYSICO-CHEMICAL PROPERTIES	Unit	1.6 -2.6 mm dia spheres	2-4 mm dia spheres
1	Equilibrium Water Adsorption Capacity at 30 and 15% RH	% w/w	23 - 27	23 - 27
2	75% RH	% w/w	26 - 29	26 - 29
3	Thermal Stability after 600oC Equilibrium Water Adsorption capacity at 30oC & 15% RH	% w/w	23 - 27	23 - 27
4	CO_2 Ads. Capacity 760 mmHg. At 30 deg.	% w/w	19.5 - 21.5	19.5 – 21.5
5	Crushing Strength (Active)	Kg.	3 - 7	4 - 10
6	Attrition Loss on Tumbling	% w/w	0.02- 0.20	0.02 – 0.25
7	Free Moisture (Max)	% w/w	1.5	1.5
8	Bulk Density	g/L	600 - 700	600 - 700
9	Bed Crushing Strength	%	80 - 90	80 - 90

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ISO 9001 BUREAU VERITAS Certification Excluding Design

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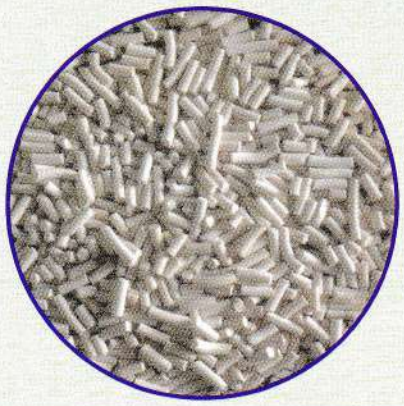
Science in the service of Industry & Environment



▲ MOLSIEVE 13X-LTG in pellets form

▲ MOLSIEVE 13X-LTG in Spheres form

Packing :

Molecular Sieves GMGB 13X-LTG are packed for industrial use in airtight MS drums under hot conditions with proper sealing arrangement so that there is no ingress of moisture during storage and transport. Standard packing : 200/210 Lit. drum size 570 × 860 (H) mm

Life :

MOL. SIEVES 13X-LTG has infinite shelf life, when stores in packed condition. The active service life would depend, however, on the operating conditions of the plant, actual application, and the usage by the customer.

Loading :

MOL. SIEVES 13X-LTG does not require any special precaution or procedure during loading. However, the health of the grid support is to be checked, and 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 and chute so as to avoid dusting and attrition due to impact of free fall. The drums should be kept in the covered shed. 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 inflammable, nor toxic. Overall, it is not hazardous. Repeated exposure may irritate skin, eyes and respiratory system. The product gets hot as it is first exposed to atmosphere due to adsorption of moisture.

Regeneration :

MOL Sieves 13X-LTG should be regenerated thermally or by evacuation with simultaneous purge. For thermal regeneration, the adsorbent may by heated to 180 – 200 deg.C for removal of CO_2. For simultaneous removal of H_2O and CO_2, the adsorbent should be heated to 180-250 deg.C. However, the exact regeneration condition (temperature, purge gas flow, etc) depends on the application, feed quality and other operating condition.

Applications :

1. Simultaneous removal of Moisture & CO_2 from feed air of Air Separation / Cryogenic Plant.
2. Mercaptans removal from gaseous streams.
3. Process air drying of dew point less than (minus) - 60 deg. C for suphonation plant.
4. Sweetening of Natural Gas
5. Removal of H_2S from gaseous streams.