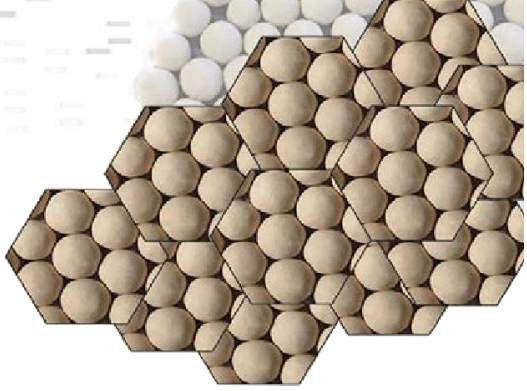
STANDARD 3A

MOLECULAR SIEVE



DESCRIPTION

Standard 3A molecular sieve is most commonly used for dehydration and can be applied in both PSA and VSA units to remove H_2O. It has a quick mass transfer rate, high mechanical strength, low attrition, and can minimize byproduct formation. This molecular sieve can be used to dehydrate unsaturated hydrocarbon streams, while offering low levels of hydrocarbon coadsorption, which makes it a suitable product for natural gas plants looking to minimize hydrocarbon loss or reduce sulfur peaks. Standard 3A is a versatile molecular sieve that has a wide range of applications including those in natural and petroleum gas dehydration, refrigerant drying, and for use in insulated glass.

CHEMICAL FORMULA

$(Ұ)_a \times [(AlO_2)_a(SiO_2)_b] \times cH_2O$ *(Ұ = Na, K)*

SPECIFICATIONS

Molecular Sieve					
Standard 3A		**Beads**			
Property	**Unit**	**4x8 Mesh**	***4x8 *Avg***	**8x12 Mesh**	***8x12 *Avg***
Diameter	mm	2.5 - 5.0	-	1.6 - 2.5	-
Bulk Density	g/mL *(lb/ft^3)*	0.70-0.76 *(43.7-47.4)*	*0.72 (45.19)*	0.72-0.76 *(44.9-48.7)*	*0.75 (46.73)*
Crush Strength	N *(lbm*ft/s^2)*	≥90 *(≥20)*	*113.6 (25.54)*	≥30 *(≥6.7)*	*40.4 (9.08)*
Static H_2O Adsorption	wt%	≥21.0	*21.49*	≥21.0	*21.47*
Attrition	wt%	≤0.1	*0.07*	≤0.1	*0.07*
Moisture Content	wt%	≤1.0	*0.17*	≤1.0	*0.21*
Packaging	Beads	1,000kg *(2,204.6lb)* / Super Sack		150kg *(330.7lb)* / Drum	

**Avg refers to a 12 month average of lot analyses*

INDUSTRIES USED

natural gas dehydration
petroleum gas dehydration
refrigerant drying
biofuel production
olefin cracked gas dehydration
oil refining
dehydration of unsaturated hydrocarbons (cracked gas, acetylene, ethylene, propylene, butadiene)
adsorption of NH_3 and H_2O from N_2/H_2 streams
polar liquid drying (ethanol and methanol)
insulated glass, plastic, paint, sealant, coatings, glue

STORAGE

As an adsorbent, molecular sieve should not be left exposed to open air and should be stored in dry conditions with air-proof packaging. This product should not be exposed to temperatures exceeding 230˚C *(450˚F)*.

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