



4A MOLSIIV™ ADSORBENT

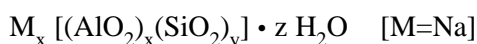
DESCRIPTION

4A MOLSIIV Adsorbent is a clay-bound sodium form of Type A molecular sieve. 4A molecular sieve will adsorb molecules with critical diameters up to 4 angstroms. It adsorbs water and ethanol, but not larger molecules like propane.

APPLICATION

4A molecular sieve is recommended for the dehydration of air in hopper (plastic) drying units and pressure swing (PSA) dehydrators. Its exceptional product strength makes 4A ideal for sachet and other custom packaged desiccating needs.

CHEMICAL FORMULA



TYPICAL PHYSICAL PROPERTIES

4A molecular sieve is available in granular, spherical or extrudate form. The nominal sizes of the granules and spheres or “beads” are shown below. The diameters for the extrudates or “pellets” are also shown; the length is approximately twice the diameter.

	14 x30 granular	10x20 Beads	8x12 Beads	4x8 Beads	1/16” Pellets	1/8” Pellets
Nominal Pore Diameter (angstroms)	4	4	4	4	4	4
Particle Size Diameter (mm)	0.8	1.4	2.0	4.0	1.6	3.2
Bulk Density (lbs/ft ³)	44	44	44	44	44	44
Heat of Adsorption (Btu/lb H ₂ O)	1800	1800	1800	1800	1800	1800
Crush Strength (lbs)	N/A	N/A	7	18	10	20
Equilibrium H ₂ O Capacity* (wt-%)	22	22	22	22	22	22
Moisture content (wt-%)	1	1	1	1	1	1

*Measured at 17.5 mm Hg and 25°C

REGENERATION

4A molecular sieve can be regenerated for re-use by purging or evacuating at elevated temperatures. The degree of regeneration is dependent on the temperature and humidity of the purge gas.

SAFETY AND SAFE HANDLING

See the UOP brochure “Precautions and Safe Practices for Handling Molecular Sieves in Process Units” or call your UOP representative.

SHIPPING INFORMATION

4A is shipped in steel drums or Quick-Load bags.

FOR MORE INFORMATION

UOP also offers specialty 4A products: 4A-DG for natural gas and saturated hydrocarbon dehydration; 4A-LNG for natural gas purification for cryogenic storage. For more information on any of these products, contact your UOP representative, or UOP’s Adsorbents business at:

Telephone: 1-440-734-0086
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