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Product Data Sheet

F200

Activated Alumina for Liquid and Gas Drying

BASF F200 is a smooth sphere of activated alumina produced by BASF's unique manufacturing process. F200 is an excellent desiccant for drying a wide variety of liquids and gases. Although all molecules are adsorbed to some extent on F200 activated alumina, those molecules having the highest polarity are preferentially absorbed. Stream conditions such as pressure, concentration and molecular weight of the molecules, temperature and site competing molecules affect the efficiency of adsorption. F200 is available in nominal sizes of 1/16", 1/8", 3/16" and 1/4" spheres.

Product Benefits

1. Uniform ball size

This property is especially useful in high pressure gas dehydration where minimizing pressure drop is important. The uniform size and sphericity of BASF F200 prevents adsorbent segregation during pneumatic loading, thus minimizing channeling and yielding more efficient use of the entire desiccant tower.

2. High crush strength

BASF F200 has high crush strength which allows rapid pneumatic loading of towers. The high crush strength also allows use of taller towers that make more efficient use of the desiccant. BASF F200 activated alumina is highly resistant to amine attack. Furthermore, BASF F200's high crush strength enables it to dehydrate acid containing gases and liquids, such as CO_2, for a longer operating life.

3. Low abrasion

The low abrasion of BASF F200 ensures less dusting during transport, loading, and service life which reduces pressure drop and minimizes down-stream valve and filter plugging, common with dustier products.

4. High adsorptive capacity

BASF F200's high surface area and tailored pore distribution provide a high dynamic H_2O adsorption capacity. With proper tower design and effective regeneration, F200 can achieve an ultra low H_2O effluent specification (i.e. dew point). BASF F200 also has excellent cyclic stability that yields a long life.

Available Packaging

- 50 lb bags
- 375 lbs steel drums
- 2000 lb super sacks

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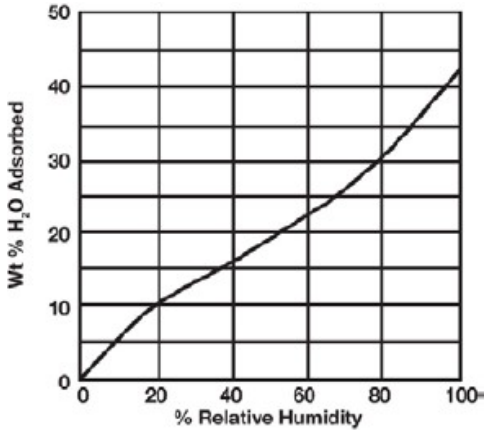
Typical Physical Properties	7x14 Tyler Mesh (2.0 mm)	1/8" (3.2 mm)	3/16" (4.7 mm)	1/4" (6.4 mm)
Surface Area, m^2/g	360	350	340	320
Total Pore Volume, cc/g	0.5	0.5	0.5	0.5
Packed Bulk Density, lbs/ft^3 (kg/m^3)	48 (769)	48 (769)	48 (769)	48 (769)
Crush Strength, lbs (kg)	11 (5)	30 (14)	55 (25)	70 (32)
Abrasion Loss, wt %	0.1	0.1	0.1	0.1



Typical Chemical Composition (wt %)	
Al_2O_3	92.7
SiO_2	0.02
Fe_2O_3	0.02
Na_2O	0.30
LOI (250-1100°C)	7.0

Product Applications

1. Drying

Nearly all gases and liquids can be dried with F200. Water removal is often necessary for efficient processing, storage and transportation of fluids. The 3/16" size is normally recommended for vapor phase dehydration applications where pressure drop minimization yet high H_2O adsorptive capacity is desired. The 1/8" and 7 x 14 Tyler mesh sizes are recommended for use in liquid dehydration and other mass transfer limited adsorption applications.

BASF F200 activated alumina is the industry standard for drying compressed air. Providing long service life with performance at or below dew point specifications, F200 is a peace of mind' product for both large and small dryers. BASF F200 is appropriate for use in dehydrating gases in both thermally regenerative (350 to 600°F) and pressure swing (PSA) modes.

2. Acid removal

Transformer oils, lubricating oils, and refrigerants form degradation acids upon use. BASF F200 will remove these acids during use. In the manufacture of chlorinated and/or fluorinated hydrocarbons, removal of these residual halides and water is essential for a non-corrosive product.

3. Process stream purification

BASF F200 is excellent for removal of highly polar compounds such as water and alcohol. It also readily adsorbs TBC and heavy metal ions from hydrocarbons.

4. Hydrocarbon adsorption

Under proper operating conditions, the pore size distributions and surface chemistry of activated aluminas are conducive to the adsorption of hydrocarbons.

About Us

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts, adsorbents and custom catalysts. In the process catalyst business, priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

BASF's chemical catalysts and adsorbent business is part of the company's Performance Chemicals division. The division's portfolio also includes refinery catalysts, fuel and lubricant solutions, as well as oilfield chemicals and mining solutions. Customers from a variety of industries including Chemicals, Plastics, Consumer Goods, Energy & Resources and Automotive & Transportation benefit from our innovative solutions.

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BASF-9201 Rev 09/25