



RXSOL

CHEMO PHARMA INTERNATIONAL

Technical Data Sheet (TDS)

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Activated Alumina Desiccants 2 to 5 mm

Activated Alumina Desiccants:

Activated Alumina Desiccants is a porous form of aluminum oxide. It has a high surface area which adsorbs vapors without any change in form. Activated Alumina Desiccants will not soften or disintegrate easily when immersed in water.

Dew points to -40°F and lower may be achieved with Activated Alumina Desiccants depending on dryer design and operating conditions.

The 1/8" (2-5mm) bead is the size most frequently used in regenerative dryers.

The 3/16" (4-8mm) bead is used when pressure drop and surface area requirements fall between 1/8" and 1/4" material. It is suitable for most systems.

The 1/4" (5-10mm) bead Activated Alumina Desiccants is used both as a pre-bed material to support large desiccant beds or as a buffer for silica gel beads. Pressure drop is slightly lower than 1/8" (25mm) material.

If size is not known or specified, the 1/8" (2-5mm) size is usually satisfactory. However, if Activated Alumina Desiccants is used in a regenerative dryer and the desiccant retaining screens cannot be measured, the 1/4" (5-10mm) size should be used as a bed support (6" layer). If at all possible, obtain a sample and measure it before ordering.

Product Benefits:

1. **High adsorption capacity.** With high surface area and excellent pore distribution, Activated Alumina Desiccants has a high water adsorption capacity. This reduces initial cost, energy consumption and operating costs through smaller bed sizes and/or longer operating cycles.
2. **Low abrasion.** Insures less dusting during tower depressurization or loading. Low abrasion means low pressure drop and a reduced chance of plugging the afterfilter.
3. **Resists liquid water.** Water slugging due to upstream failure of aftercooler, separators or drain traps will not fracture the alumina beads. The adsorption capacity of the desiccant can be restored after complete regeneration.
4. **High crush strength.** High crush strength, which limits dusting, is important during loading of desiccant towers. High crush strength makes alumina effective as a prebed material when used with other types of desiccants.
5. **Uniform bead sizes.** Activated Alumina Desiccants is a uniformly sized bead. It provides low pressure drop to minimize channeling and ensures utilization of the full bed column section.

Physical Properties:

	1/8" (2-5mm)	3/16"(4-8mm)	1/4" (5-10mm)
Color and form	White bead	White bead	White bead
Bulk density	48 lbs/Ft3	48 lbs/Ft3	48 lbs/Ft3
Crush strength	17-30 lbs	145-60 lbs	50-70 lbs
Surface area	1.74 x 106 sq ft/lb	1.65 x 106 sq ft/lb	1.59 x 106 sq ft/lb
Static adsorption Humidity	-	-	-
100% RH	42.0%	40.0%	36.0%
90% RH	37.5%	35.0%	32.0%
60% RH	21.0%	21.0%	17.5%
10% RH	7.5%	7.0%	6.0%

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