

Active Bed Support

Uniform spheres of activated alumina

BASF Active Bed Supports (ABS) are uniform spheres of activated alumina produced by BASF's unique manufacturing process. Their primary use is for top and bottom bed support in adsorption units. The product can also be used in catalytic applications where activated alumina is beneficial to the process.

Product Applications

Activated alumina is a very porous form of aluminum oxide of high surface area which adsorbs contaminants from liquids and gases. ABS are used to enhance alumina performance in adsorption applications. ABS used on the inlet portion of the bed helps minimize contamination from carryover of amines, liquid (entrained) water, compressor oils, high MW hydrocarbons, salts, etc., onto the adsorbent bed.

High crush strength becomes significant when used at the bottom of large towers. Adsorbent beds are usually supported at the bottom with 3"-12" depth of bed support. High crush strength support material is used to prevent migration of adsorbent and/or adsorbent fines from the vessel. A minimum of 3"-6" is also recommended on the top of the adsorbent to serve as a gas flow distributor.

The high surface area of BASF active bed supports yields high utilization of the alumina for contaminant removal. Acting as an adsorbent, increased unit capacity allows longer cycle time, fewer regeneration and longer inventory life. BASF active bed supports have very low silica content, which minimizes unwanted side reactions.

Available Sizes

- 1/8"
- 1/4"
- 3/8"
- 1/2"

Available Packaging

- 2000 lb (907 kg) super sacks
- 350 lb (159 kg) steel drums

Physical Properties	1/2" (12.7mm)	3/8" (9.5mm)	1/4" (6.4mm)	1/8" (3.2mm)
Surface Area, m ² /g	280	300	320	340
Total Pore Volume, cc/g	0.5	0.5	0.5	0.5
Abrasion Loss, wt %	0.15	0.10	0.10	0.10
Bulk Density, lbs/ft ³ (kg/m ³)	45 (720)	46 (740)	48 (770)	48 (770)
Crush Strength, lbs (kg)	150 (68)	100 (45)	70 (32)	30 (14)
Al ₂ O ₃ (volatile free), wt %	>99 %	>99 %	>99 %	>99 %
Alumina XRD phase	Amorphous, chi and gamma			

*These indicative properties do not represent process capabilities nor specifications.

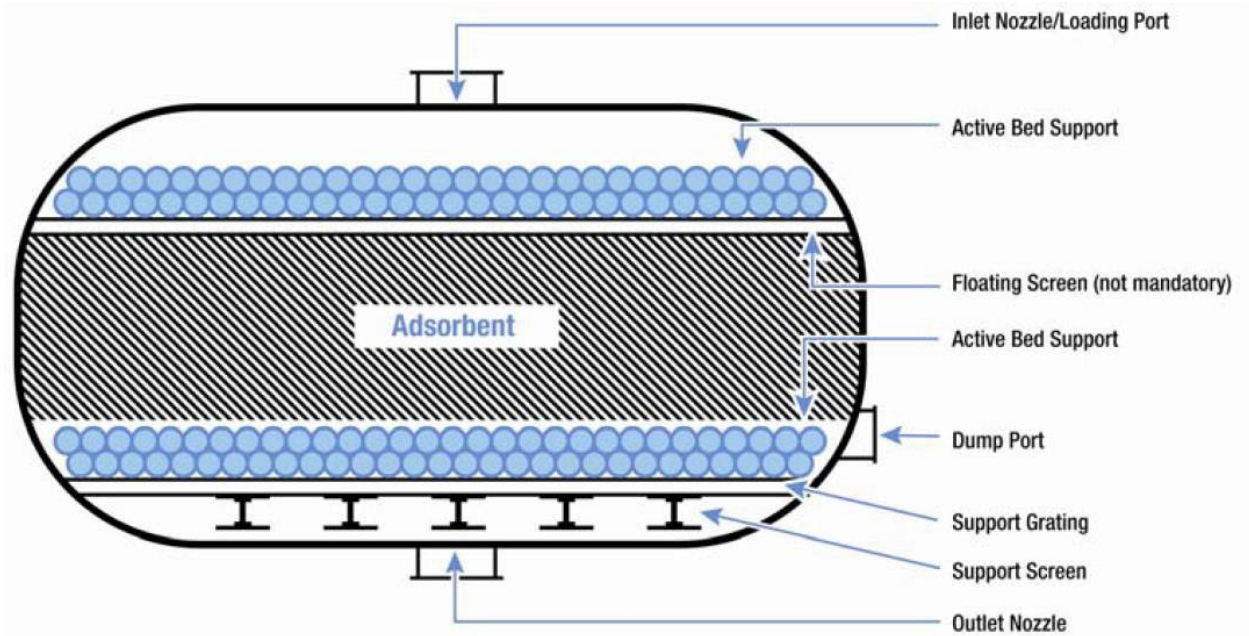


Figure 1. Bed drawing with location of ABS indicated at top and bottom of bed.

About Us

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The division's portfolio also includes battery materials and recycling solutions, as well as environmental catalysts and metal solutions.

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All data represents typical product properties and are based upon BASF standard test methods. All test methods are available upon request.

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