

Activated Carbon AMMONASORB II

Specialty Activated Carbon

Standard activated carbon has a relatively low capacity for NH₃, because of its low molecular weight and high vapor pressure. To overcome this, Barnebey Sutcliffe developed Ammonasorb II, a impregnated coconut shell based carbon that provides efficient removal of NH₃ and amines from vapor phase streams. Ammonasorb II has been used in applications ranging from industrial gas purification to indoor air quality.

The capacity of Ammonasorb II for ammonia ranges from 7 to 16 % by weight, depending on operating conditions. For monomethylamine removal, the capacity is approximately 5% by weight.

Specifications

Gas Adsorption Capacity (Base Material) [ASTM D-3467]	60	% w/w Minimum
Moisture Content [ASTM D-2867]	5	% w/w Maximum
Particle Size [ASTM D-2862]	4x8	US Mesh

Typical Properties

Ball Pan Hardness [ASTM D-3802]	98
Ash Content (Base Material) [ASTM D-2866]	3% w/w
Bulk Density [ASTM D-2854]	0.55 g/cm ³

Packaging Options

50 Pound bags	Bulk tanker	15 Gallon drum
55 Gallon drum	1,000 Pound bulk sacks	

Unless otherwise specified, particle size distribution will be 5% maximum on the top screen and 5% maximum through the bottom screen. An MSDS is available for all BSC activated carbon products. If the moisture exceeds the referenced value, BSC weight adjusts to the referenced value.

Lab Testing

Lab testing of Ammonasorb II was conducted under the following conditions:

Flow rate:	37 l/min.
Concentration:	70 ppm inlet ammonia
Bed depth:	2 inches
Bed diameter:	2.5 in.
Temperature:	25 °C
Particle size:	8x10 mesh
Relative humidity:	50%

The figure below illustrates the breakthrough curve. Based on this test, the equilibrium capacity is about 13.5% by weight. Breakthrough capacity (1 ppm) is about 7.4% by weight.

Ammonasorb II Capacity

