

SORBAMINE

Granular Activated Carbon, 4x10 and 8x30

Description

Calgon Carbon Corporation's Sorbamine product is specifically for use in the oil refining and gas processing industries for the treatment of amine solutions (DEA, MEA, etc). Sorbamine is produced in two particle size distribution ranges, 4x10 and 8x30. The availability of two mesh sizes enables the user to choose the proper product to meet specific pressure drop demands. Both size ranges have shown excellent adsorption characteristics when used in slipstream amine treatment applications.

Features

- Reagglomerated metallurgical grade bituminous coal
- Uniformly activated granules
- High pore volume
- Faster adsorption

Benefits

- Reagglomeration creates optimal transport pores for faster adsorption.
- A consistent, high quality product with a strongly adsorbing wide-range pore structure optimal for the adsorption of a variety of degradation products and foam causing contaminants.
- High mechanical strength and uniform transport pore distribution resulting in excellent performance in a wide range of process conditions.
- Hardness and abrasion resistance required for environmentally friendly thermal reactivation and reuse and to minimize generation of fines in operations requiring backwashing or with intermittent flow patterns.

Applications

Sorbamine is a granular activated carbon used in the purification of re-circulating amine streams, in glycol dehydration units and gas purification units where amines are used for sour gas treatment.

Specifications

SORBAMINE 4x10

Butane Activity, wt%	23.3 (min)
Moisture (As Packaged), wt%	2 (max)
4 US Mesh [4.75mm], wt%	6 (max)
< 10 US Mesh [2.00mm] (PAN), wt%	3 (max)

Specifications

SORBAMINE 8x30

Iodine Number, mg/g	900 (min)
Ash, wt%	10 (max)
Moisture (As Packaged), wt%	2 (max)
8 US Mesh [2.36mm], wt%	15 (max)
< 30 US Mesh [0.600mm] (PAN), wt%	4 (max)

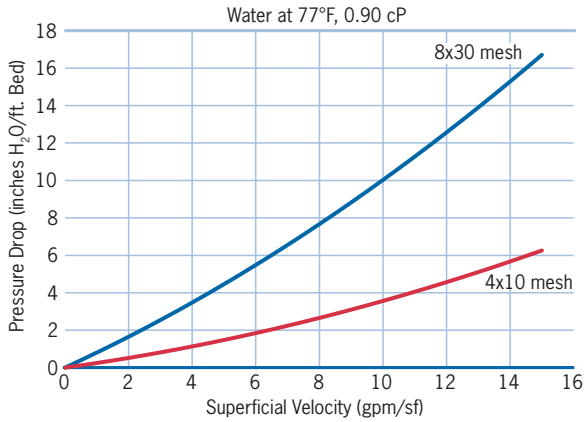
Design Considerations

Typical Flowrate	10% slipstream of amine flowrate
Velocity	4.0 gpm/ft ² (2.7 cm/sec) (max) 2.0 gpm/ft ² (1.4 cm/sec) (typical)
Contact time	15 minutes (min)
Vessel material	unlined carbon steel
Typical carbon life	dependent on amine quality Filtration bag or cartridge filter- both upstream and downstream of carbon vessel
Typical design	single vessel is typical, but dependent on amine flowrate, multiple vessels would be in parallel mode operation.

An effective carbon system for amine purification should include a properly designed and sized carbon vessel, pre and post carbon mechanical filtration, and efficient carbon handling equipment. The carbon system should be installed on the lean side of the circulating amine stream. Experience has shown that when rich side treatment is applied, the CO₂ and H₂S that are absorbed by the amine can be released in the carbon bed. This gas tends to form "bubbles" around the carbon granules and inhibits the adsorption process. To determine what is best for your application and assistance with the design, please contact Calgon Carbon Corporation by calling 1-800-4-CARBON.

Typical Pressure Drop

Downflow pressure drop through a dense packed bed of Sorbamine 4x10 or 8x30



Packaging

Please contact Calgon Carbon for options and availability.

Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable federal and state requirements. Please refer to the MSDS for all up to date product safety information.

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