AC CARB 1240 LS

GRANULAR ACTIVATED CARBON FOR BOILER – CONDENSATE TREATMENT

Granular Activated Carbon (GAC) is frequently used to remove dissolved organic impurities from condensate water treatment. Steam boilers have a wide spread use in the process industry, food industries and power plants. Boiler systems are roughly classified as low pressure (<20 bar), medium pressure (20-75bar) and high pressure (>75bar) systems.

For economic and energy saving reasons, the condensate return to the Boiler's feed water should be maximized. However, the steam may be contaminated by organic impurities and suspended solids like iron particles.

Condensate Polishing Units are operated for removal of Oil & Grease up to 15ppm in the Condensate return line.

The condensate return stream is typically treated in order to have dissolved and suspended impurities removed.

ACCARB 1240 LS is a granular activated carbon developed by Active Char Products Pvt. Ltd., to remove dissolved organic impurities in condensate water treatment systems.

Empty Bed Contact time of filters typically vary between 15-60 minutes based on the impurity level present in the Condensate stream.

The total service time for removal of dissolved organics obviously strongly depends on GAC feed water quality, treatment targets and filter design. In practice, the service time of a GAC filter (if operated properly)

Product Feature

- ✓ **No pre-washing of filter beds needed**
- ✓ **Lowest level of Silica Leaching**
- ✓ **Low ash content**
- ✓ **Superior Hardness and High Resistance to Attrition**

Product Benefit

- ✓ **Improvement in machinery life time**
- ✓ **Reduction of maintenance cost in petroleum refineries**
- ✓ **Life time of the filter bed is increased**
- ✓ **Superior performance due to the lower presence of organic impurities**

TECHNICAL DATA SHEET

Particle Size Distribution*

Surface Area	*1100 m^2/g Min.*
Apparent Density	*0.490 cc/g Min.*
CTC Activity	*55% Min.*

Typical Properties*

+12	*5% Max.*
-40	*5% Max.*
Effective Size	*0.55 to 0.75 mm*
Uniformity Coefficient	*1.9 mm Max.*
Mean Particle Diameter	*1.2 mm Typical*

Specification*

Iodine No.	*1100 mg/g Min.*
Moisture	*3% Max.*
Ash Content	*2% Max.*
pH	*Neutral*
Abrasion No.	*85 Min*

Packaging

55lb./110lb. (25/50 kg) poly bag
1,100 lb.(500/550 kg) Bulk bag

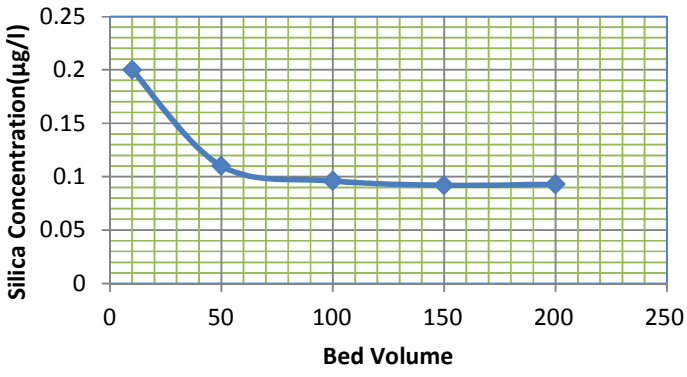
Specialties

- The coconut carbon developed by Active Char Products Pvt. Ltd. has a very high pore volume,(80%) and a high surface area(1100m^2/gm).
- The pore diameter of ACCARB 1240 LS is of the order of picometers it completely retains these ions permanently, as the polarity of coconut carbon is well suited to form permanent bonding with these ions, which leads to the total absence of silica leach, Mg leach and Ca leach.
- Being developed from activated coconut carbon the purest form of carbon there are no unidentifiable leachable materials unlike coal carbon or even wood carbon.

Silica Leaching

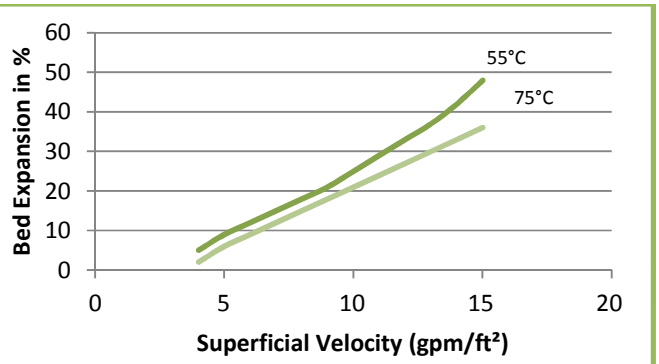
The leaching of silica in AC CARB 1240 LS has been determined at the standard inlet pH of 6.5 to 7, contact time 72 hours and the temperature of water during the soaking is 40°C.

The silica in the effluent is <0.1 mg/l.

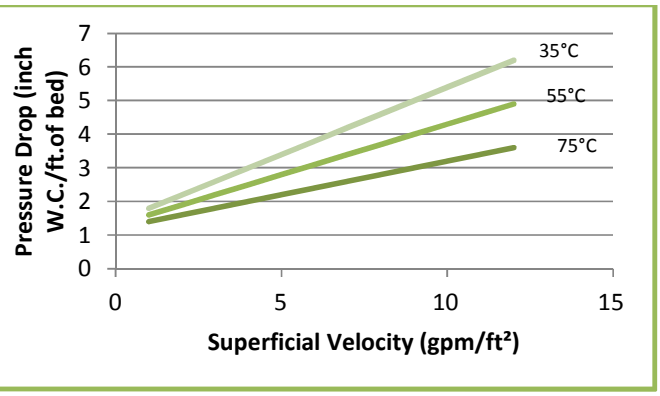


*For general Information only, not to be used as purchase specifications.
Other sizes are also available as per the customer requirement.

Bed Expansion



Pressure Drop



Alternative Grade

ACCARB 816 LS
ACCARB 830 LS

Technical Criteria for GAC selection

The GAC grade to be preferred depends on the application. Major application related criteria are summarized below:

Adsorptive Properties

Key issue is the removal of dissolved organics. In order to achieve a long service time of the GAC filter, an optimal pore size distribution and proper particle size are required.

Hydrodynamics

The flow rate required for proper backwashing of the filtered. Further, the pressure drop of the filter bed at given flow rate. These factors are influenced by selecting the GAC particle size and shape.

Mechanical strength

The GAC shall have a certain mechanical durability to make it suitable for the application. The mechanical strength is related to the strength of the GAC particle in combination with the surface texture.

For more information on the product, please contact our application specialists at the address below

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