

# BPL® 4x10 Granular Activated Carbon



CALGON CARBON CORPORATION

## Description

BPL® 4x10 is a virgin granular activated carbon designed for use in gas phase applications. It is a bituminous coal-based product activated at a high temperature in a steam atmosphere. Its particle and internal pore size distribution allow for rapid adsorption kinetics at medium to low differential pressure drop across the carbon bed. Because of its surface area, density, and strength characteristics, BPL® 4x10 can be reactivated for reuse, eliminating disposal problems.

## Design Considerations

The design of an activated carbon adsorption system is dependent on the adsorbate type, influent concentration, temperature, flow rate, performance objective, and other factors. Calgon Carbon Corporation can help evaluate the suitability of activated carbon to satisfy specific needs and assist in the design of an adsorption system. In addition to the supply of activated carbon, Calgon Carbon Corporation offers adsorption systems and carbon reactivation services to meet particular treatment objectives. For additional information on adsorption capacity of organic compounds, please contact the Calgon Carbon Corporation Technical Sales Representative for your area.

When designing an activated carbon adsorption system, Calgon Carbon Corporation recommends that the dense-packed pressure drop curve be used for fan sizing since activated carbon will settle during use. The loose-packed pressure drop curve is only applicable during start-up of the system.

## Applications

Some of the typical applications for BPL® 4x10 activated carbon include:

- Solvent recovery
- Tank vent emissions
- HVAC
- Catalyst support
- Odor control
- Gas purification
- VOC control

## Specifications

Iodine Number	1,050 mg/g (min)
Butane Activity by weight	23.3% (min)
Moisture, as packed by weight	2% (max)
Hardness Number	93 (min)
Apparent Density	0.44 g/cc (min)
Screen Size by weight, U.S. Sieve Series	
On 4 Mesh	6% (max)
4x6	30 (min)–55% (max)
6x8	30 (min)–55% (max)
8x10	3 (min)–15% (max)
Through 10 mesh	3% (max)

## Features

<i>Raw Materials</i>	
Metallurgical grade bituminous coal	
Low ash content coal	
<i>Particle Construction</i>	
Coal is pulverized and reagglomerated with suitable binder	
No chemical additives—only carbonaceous materials used	
Granular shape	
<i>Activation Process</i>	
Thermal activation with reducing atmosphere (steam)	
All carbon structure suitable for multiple cycles of in-situ regeneration or high temperature reactivation	

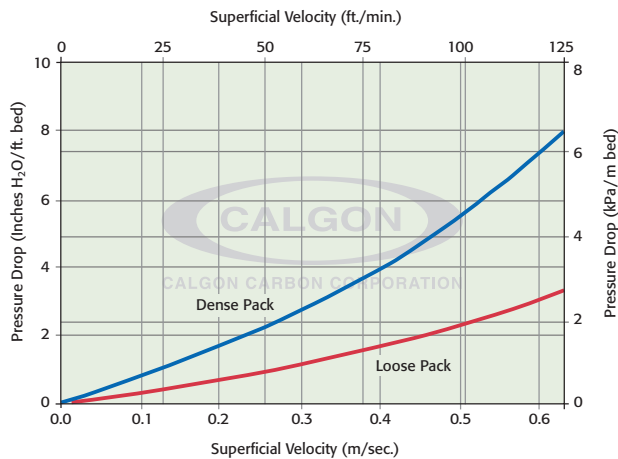
## Benefits

<i>Raw Materials</i>	
Produces strongly adsorbing pore structure for a broad range of contaminants and concentrations.	
Higher density results in high volume activity and economical adsorber design.	
Higher purity activated carbon; meets Food Chemical Codex requirements.	
Less ash means more carbon structure for adsorption.	
<i>Particle Construction</i>	
Creates optimal transport paths for faster adsorption/desorption, especially important for catalyst and chemical conversion processes.	
Generates the hardness and abrasion resistance required for in-situ regeneration and thermal reactivation.	
Higher purity carbon with less chance of adverse chemical reactions.	
Low void fraction; more efficient contact with gas stream.	
<i>Activation Process</i>	
No residual activation chemicals to interfere with application.	
Allows for ultimate destruction of adsorbed organics with minimal loss of the original carbon structure.	
Allows for the reuse of the carbon and eliminates disposal problems.	

# BPL® 4x10 Granular Activated Carbon



## Pressure Drop Curve



## Packaging

200 lb. (90.7 kg) fiber drums

## 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.

## Limitations of Liability

The Supplier's liability and the Purchaser's exclusive remedy for any cause of action arising out of this transaction, including, but not limited to, breach of warranty, negligence and/or indemnification, is expressly limited to a maximum of the purchase price of spare parts or equipment sold hereunder. All claims of whatsoever nature shall be deemed waived unless made in writing within forty-five (45) days of the occurrence giving rise to the claim. In no event shall the Supplier, for any reason or pursuant to any provision of the warranty, be liable for incidental or consequential damages or damages in excess of the purchase price, nor shall the Supplier be liable for loss of profits or fines imposed by governmental agencies.