

# Product Bulletin

## BPL 4 X 10 GRANULAR ACTIVATED CARBON

### 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. It has a particle and internal pore size distribution allowing 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.

### Applications

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

- ◆ Solvent Recovery
- ◆ HVAC
- ◆ Odor Control
- ◆ VOC Control
- ◆ Tank Vent Emissions
- ◆ Catalyst Support
- ◆ Gas Purification

### 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 Office in your area.

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

The typical apparent density of this product is 0.48 g/cc (30 lb/ft<sup>3</sup>). In practice, the loose-packed density is approximately 0.42 g/cc (26 lb/ft<sup>3</sup>).

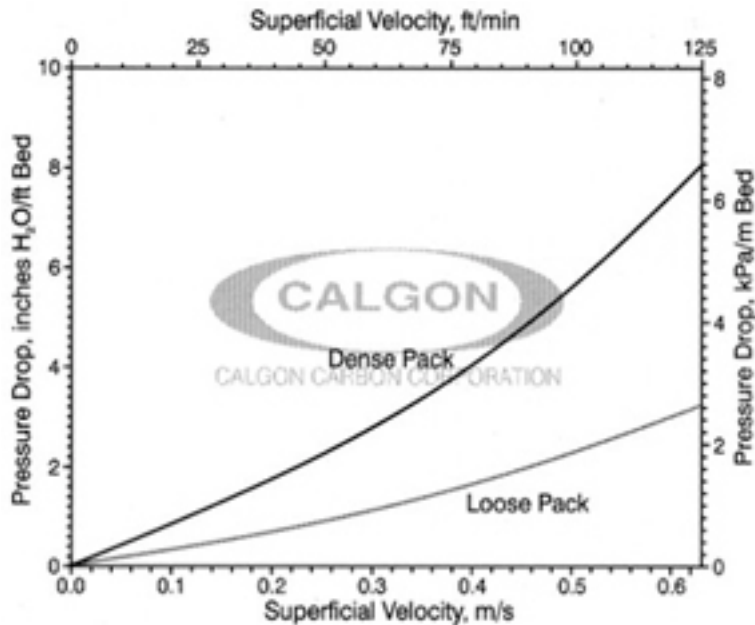
### Specification

Iodine No., mg/g	1050 Min
Butane Activity, weight %	23.3 Min
Ash, weight %	8 Max
Moisture, weight %, as packed	2 Max
Hardness No.	93 Min
Apparent Density, g/cc	0.47 Min
Screen Size, U.S. Sieve Series, weight %:	
On 4 Mesh	6 max
4x6	30-55
6x8	30-55
8x10	3-15
Through 10 mesh	3 max



Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com), or call 1-800-4-CARBON to learn more about our complete range of products and services, and local contact information.

**Chemviron  
Carbon**



Pressure Drop Curve

## Features

### Raw Material

- ◆ Metallurgical grade bituminous coal
- ◆ Low ash content coal

### Particle Construction

- ◆ Coal is pulverized and re-agglomerated with suitable binder
- ◆ No chemical additives; only carbonaceous materials used
- ◆ Granular shape

### Activation Process

- ◆ Thermal activation with reducing atmosphere (steam)
- ◆ All carbon structure suitable for multiple cycles of in-situ regeneration or high temperature reactivation

## Benefits

- ◆ 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.

- ◆ 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.

- ◆ 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.



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## Packaging

200 lb (90.7 kg) fiber drums

## Manufacturing

Pearlington, MS

Feluy, Belgium

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## 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.



Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com), or call  
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