

# Product Bulletin

## BPL 4 x 6 GRANULATED ACTIVATED CARBON

### Description

BPL® 4x6 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 is the largest mesh size granular carbon that Calgon Carbon Corporation produces, specifically suited to minimize pressure drop in gas phase applications. Because of its surface area, density, and strength characteristics, BPL® 4x6 can be reactivated for reuse, eliminating disposal problems.

### Applications

Some of the typical applications for BPL® 4x6 activated carbon include:

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

### Specification

#### Iodine No., mg/g

1000 Min.

#### Butane Activity, weight %

23.3 Min.

#### Ash, weight %

8 Max.

#### Moisture, weight %, as packed

2 Max

#### Hardness No.

95 Min

#### Apparent Density, g/cc

0.44 Min

#### Mean Particle Diameter, mm

3.7 Min.

#### Screen Size, U.S.Sieve Series, weight %

On 4 mesh

15 max.

#### Through 7 mesh

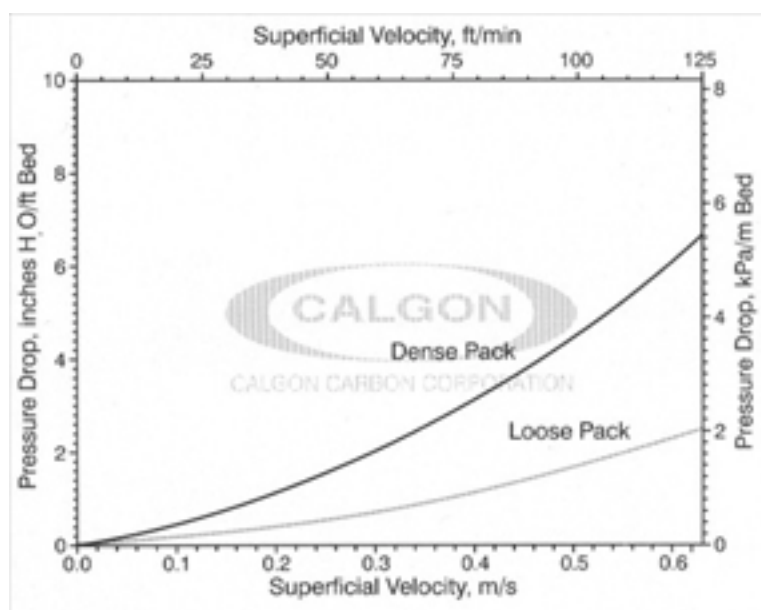
8.0 Max

### 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 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 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 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 (30lb/ft<sup>3</sup>). In practice, the loose-packed density is approximately 0.38g/cc (23 lb/ft<sup>3</sup>).



Pressure Drop Curve



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**Chemviron  
Carbon**

## Packaging

200 Pound (90.7 kg) Fiber Drums

### Features

#### *Raw Materials*

- ◆ 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.

## Manufacturing

Pearlington, MS

Feluy, Belgium

## Benefits

#### *Raw Materials*

- ◆ Produces a 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 Codes requirements.
- ◆ Less ash leaves more carbon structure for adsorption.

#### *Particle Construction*

- ◆ 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.

#### *Activation Process*

- ◆ 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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## 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.



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