

Innovation in Carbon Treatment Technology

Amazon SupaCarb BP and CP Innovative Carbon Cartridge



How is this carbon cartridge innovative?

The Amazon SupaCarb BP and pharmaceutical grade CP cartridge is innovative in design and completely unique within the filtration world. The main differences between this cartridge and other carbon cartridges, be it granular activated cartridge (GAC) or carbon block cartridges, are

the **unique sintering process**, and

the **use of highly purified powdered and activated carbon**.

This unique sintering process allows the liquid to pass through the cartridge in the same way as a conventional cartridge, but offers extremely high surface contact with the activated carbon to provide unmatched adsorptive performance.



Where does this product add value in my process?

The unique sintering process offers many benefits over both traditional GAC or carbon block cartridges but is also an alternative to conventional granular carbon beds. The elimination or improvement of many non-optimum factors can add great value to your process and offer great returns on investment:

Such non-optimum conditions with traditional carbon treatments include:

- × High Operational and Maintenance Costs
- × Unfavourable safety issues with handling bulk activated carbon
- × Large volumes of water used in conventional GAC back-flush processes
- × Increased energy consumption for heat treatment and/or steam for large conventional vessels
- × Channeling and Bypass common with conventional technology
- × Highly favourable conditions for bacteria growth
- × High level of difficulty in achieving consistent sanitisation of carbon and/or vessels
- × Carbon Fluidisation

Removing or limiting such non-optimum factors from your filtration process with the use of the Amazon SupaCarb BP/CP cartridge means reducing the costs associated with the negatives of traditional carbon treatment. It also means optimising and streamlining your filtration process. Many of the benefits of the SupaCarb cartridge filters in filtration processes include:

- ✓ Increased service life
- ✓ Market leader in chlorine and taint removal
- ✓ Removal of channeling/bypass conditions
- ✓ Reduced water consumption
- ✓ Minimal or controlled bacterial growth
- ✓ Market leader for sanitation/sterilisation procedures (including steam and autoclave)
- ✓ Excellent chemical or temperature resistant media
- ✓ Validated Product
- ✓ Low capital cost
- ✓ Very low maintenance costs
- ✓ Advanced resin bonding techniques results in no carbon fluidisation
- ✓ Best technology for change-out and operator safety
- ✓ Hugely beneficial OH&S issues, especially in processes involving hazardous chemicals



Reduction and Adsorptive Benefits of the SupaCarb BP Carbon Cartridge

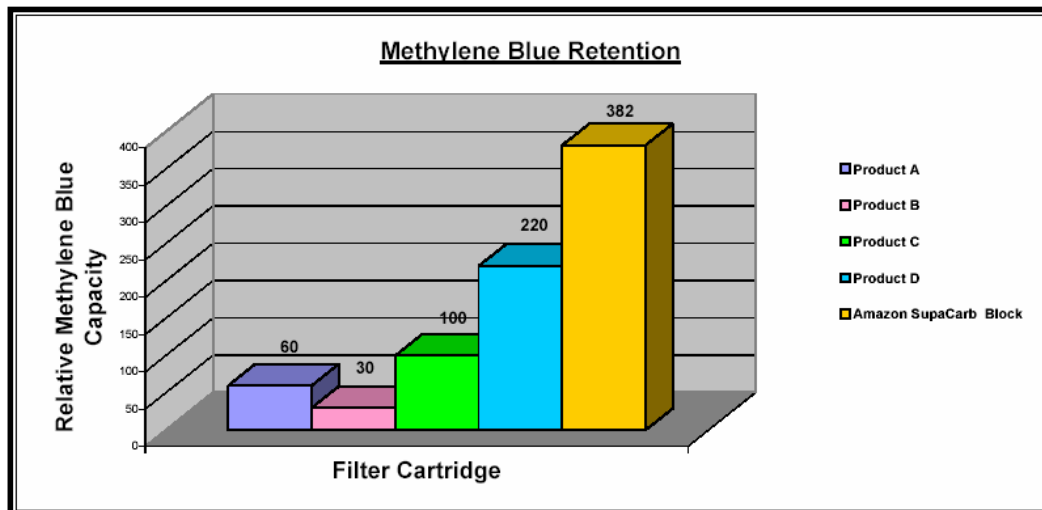
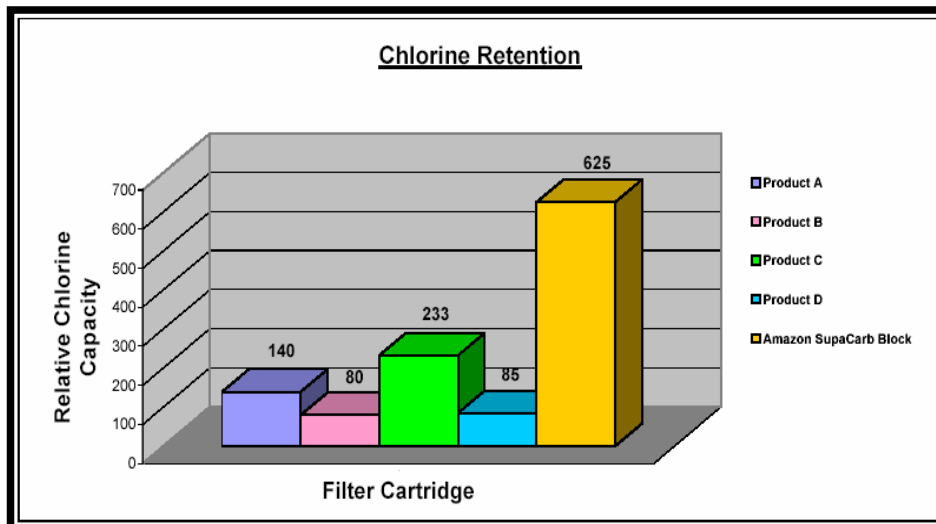
The **SupaCarb BP** is the ideal choice for general and industrial applications where carbon treatment is required. This cartridge specialises in reduction of the following:

- ✓ Chlorine
- ✓ Colour
- ✓ Taste
- ✓ Odour
- ✓ Solvent Reduction

During the development of the **SupaCarb BP** cartridge, many leading GAC cartridges were tested for their chlorine removal efficiencies. Under an optimum flow rate of 3.7 litres per minute (3ppm chlorine), conventional GAC cartridges **only passed a maximum of 300 litres** of water before chlorine 'breakthrough' was easily detectable.

In comparison, the **SupaCarb BP** passed a staggering **75,000 litres** at a minimum of 96% free chlorine retention. This is seen in below Figure 1.0.

Similarly, the **SupaCarb BP** cartridge offers hugely increased benefits when dealing with other more difficult conditions such as colour removal. The below graph (figure 2.0) offers comparative results when tested against the other market leaders in carbon cartridge technology.



Carbon Treatment Technology in the Pharmaceutical & Fine Chemical industries

SupaCarb CP – Pharmaceutical Grade

An even higher grade of carbon purity is offered with the **SupaCarb CP**, a pharmaceutical grade carbon cartridge.

Offering a greater amount of *mesopores*, the **SupaCarb CP** element is more effective than the **SupaCarb BP** in the removal of larger molecules such as a colour.

In the pharmaceutical and API industries, this cartridge has proven to be extremely successful in difficult or hazardous conditions. It can be commonly used as a replacement to granular or powdered carbon additions for the removal of contaminants, solvents or simply decolourisation.

Hugely reduced operator exposure, plus the ability to streamline and save time are all great value-adding benefits of this unique product.

Cartridges are available in a wide variety of lengths up to 60-inches, can be adapted to suit various filter housing configurations and are validatable for critical applications.



Further Information

For further information contact **Blue H2O Filtration Pty Ltd** for further information on the **Amazon SupaCarb** sintered carbon innovation technology.

Blue H2O Filtration Pty Ltd

29 Dalgety Street, Oakleigh VIC 3166, Australia

Tel: +61 3 9564 7029

Fax: +61 3 9564 7039

Email: info@blueh2o.com.au

Web: www.blueh2ofiltration.com.au

