

# FILTRATION MEDIA



## PROACTIVE™ 12 X 40 SUPERCAT™ COCONUT SHELL CARBON

**ProActive™ 12 x 40 SuperCat™ Coconut Shell Carbon (P/N IT50002SC)** is a high activity coconut shell based granular carbon that is specifically designed for the reduction of chloramines and hydrogen sulfide from potable water.

### BENEFITS

- Outstanding for applications requiring chloramine, hydrogen sulfide, and dissolved organic compound reduction
- Can be used for filtering water having a wide range of pH levels
- Large surface area results in an exceptionally high capacity and efficiency
- Balanced pore structure gives a more efficient adsorption range
- Very high carbon / low ash content
- Imparts a high "polish" to the filtered water
- Certified to NSF/ANSI Standard 61

### Specifications

Mesh Size .....	12 x 40
Bulk Density.....	28 lb/cu.ft.
Effective Size .....	0.55 to 0.75 mm
Ash Content .....	4% maximum
Iodine Number .....	1000 mg/g
Moisture as packed .....	5% maximum
pH.....	10
Packaging.....	28 lb (1 cu.ft.) bag

### Operating Conditions

Bed Depth.....	26 to 30 inch
Freeboard .....	50% of bed depth min.
Empty Bed Contact Time .....	3 minutes minimum
Dissolved Oxygen Concentration....	4 ppm (mg/L)
Service Flow Rate .....	5 gpm/sq.ft
Backwash Flow Rate .....	8 to 10 gpm/sq.ft
Backwash Expansion .....	30% to 40% of bed depth

### NOTES:

- 1) The water to be filtered should preferably be free of oil and suspended matter.
- 2) The water to be filtered should be relatively free of turbidity for maximum service life.
- 3) Upon installation, backwash to remove carbon fines before placing unit into service.

ProActive 12 x 40 SuperCat Carbon is manufactured from select grades of coconut shell coal to produce a high density, durable granular product capable of withstanding the abrasion and dynamics associated with repeated hydraulic transport, backwashing, and mechanical handling. Activation is carefully controlled to produce exceptionally high internal surface area with optimum pore size for the adsorption of a broad range of low molecular weight organic contaminants and oxidizing agents like chlorine and ozone.

### Catalytic Contaminant Removal

The catalytic activity of ProActive 12 x 40 SuperCat Carbon makes it highly effective for the reduction of chloramines and hydrogen sulfide from potable water. Its large micropore volume also makes it particularly well suited for the removal of low molecular weight organic compounds and their chlorinated by-products such as chloroform and other trihalomethanes (THMs).

### Increased Efficiency and Capacity

To obtain maximum efficiency of the activated carbon in the adsorption process, it is desirable to have the greatest possible surface area in the smallest practical volume. This is necessary because the rate of adsorption is proportional to the amount of surface area of the adsorbing media. ProActive 12 x 40 SuperCat Carbon has a surface area of 1,060 square meters per gram. This results in high efficiency and greater system economy.

ProActive 12 x 40 SuperCat Carbon requires dissolved oxygen concentration of 4ppm (mg/L) to insure effective removal of iron and hydrogen sulfide.

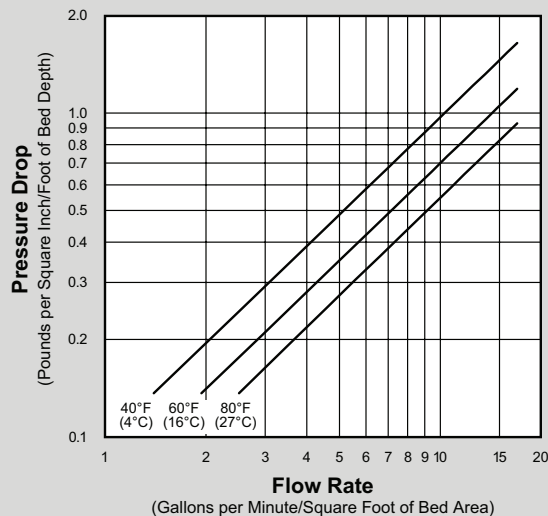
ProActive 12 x 40 SuperCat requires periodic backwashing to eliminate accumulated suspended matter and to re-grade the filter bed. It has an extremely high capacity but must be replaced when the filter bed loses the capacity for reduction of chloramines and hydrogen sulfide. The carbon may be used in either domestic or industrial applications using gravity flow or pressurized filter vessels.

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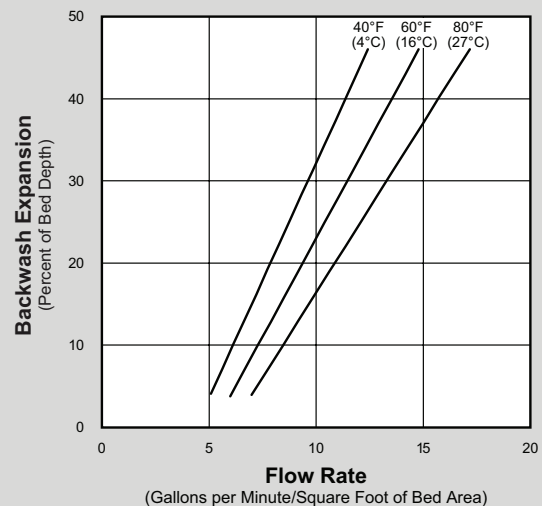


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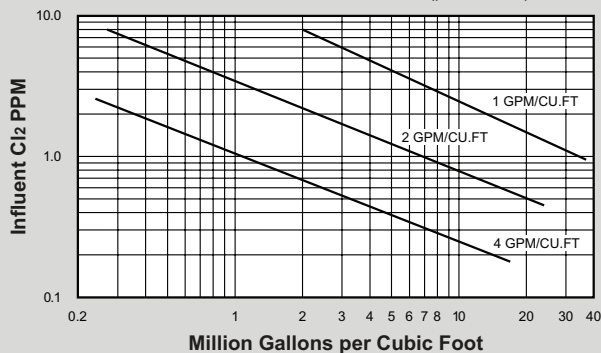
**Service Flow Pressure Drop**



**Backwash Bed Expansion**



**Dechlorination of Water (pH 7, 21°C)**



### Warning

For safety and handling purposes, we recommend appropriate protective measures when entering a wet vessel containing granular activated carbon, because wet activated carbon depletes oxygen from air and therefore, dangerously low levels of oxygen may be encountered. In such a case, the oxygen level inside the vessel shall be determined before entering and appropriate protective equipment should be worn when entering, or leave the vessel open until the oxygen level in the vessel is normal.

This information has been gathered from standard materials and or test data that is believed to be accurate and reliable. Nothing herein shall be determined to be a warranty or representation expressed or implied with respect to the use of such information or the use of the goods described for any particular purpose alone or in combination with other goods or processes, or that their use does not conflict with existing patent rights. No license is granted to practice any patented invention. It is solely for your consideration, investigation and verification.