

CATALYTIC CARBON

Iron Coated Coconut Shell Activated Carbon

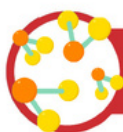
INTRODUCTION

CATALYTIC CARBON® is made of activated coconut shell carbon. This Granulated Activated Carbon is highly activated by catalysed iron-hydroxide, which enhances the adsorption of contaminants that have negative charge.

CATALYTIC CARBON® is the only available carbon in the market which is regenerable. Iron Catalyst has the highest **oxidation and adsorption** pores "Inside as well as Outside the Activated Carbon.

In addition, **CATALYTIC CARBON®** can be regenerated on site, by applying our **OXYDES®-P** oxidant (powder oxidant), which allows it to have a lifetime between 2 to 5 years.

VARIOUS REMOVAL MECHANISMS



Catalytic Removal

- Cyanides
- Heavy metals:
Arsenic, Boron,
Bromides,
Chromium, Copper,
Lead, Mercury



Removal By Adsorption

- Humic substances
- Chloramines
- Color and odor
- Trihalomethanes
- Tannins and Lignins
- Phenols as p-nitro phenol



ADVANTAGES

- Removal of multiple pollutants
- High capacity adsorption
- Regenerable on site
- Long life time: 2 to 5 years
- Filtration ($\leq 1 \mu\text{m}$) of
 - Total Suspended Solids
 - Sediments
 - Turbidity

TYPICAL APPLICATIONS

- Drinking Water Purification
- Point of Use (POU) / Point of Entry (POE)
- Municipal Drinking Water
- Beverage Production
- Protection Ion Exchange Resins
- Wastewater
- Surface Water
- Process Water and Ultra Pure Water

TECHNICAL DATA

CATALYTIC CARBON®

OPERATING CONDITIONS	
Flow direction	Can be designed both up-flow (packed bed) and down-flow
Inlet water pH	5.5 – 9.5*
System freeboard (down-flow)	25 – 35 %
Filtration rate	10 – 30 BV/h (max. 40 BV/h)
Backwash velocity	10 – 20 m/h
Bed depth	80 – 100 cm (max. 120 cm)
EBCT	≥ 90seconds

*Adjustment to the optimum pH range is required depending on the contaminant to be removed, for example: 6.5 to 6.9 for Arsenic and Chromium, 7.5 to 9.5 for Boron.

GENERAL CHARACTERISTICS	
Appearance	Coarse granules
Color	Reddish black
Particle Size	0.6 – 2.4 mm
Mesh Size(US)	8x30
Surface area (BET)	2000 – 2500 m ² /g
Moisture Content	5% (Max.)
Ball Pen Hardness	98% (Min.)
Bulk Density	630-640 kg/m ³
pH	9.5
Expected Service Life	2-5 Years*
Multiple Regeneration	Yes**

* Depending on the contamination load and regeneration frequency

** **CATALYTIC CARBON®** can be regenerated using OXYDES or **OXYDES-P** depending on the loaded contaminants

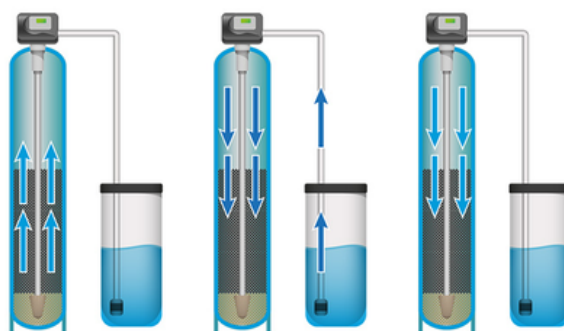
PACKAGING

- 30 L bag (19.2 Kg/bag) - 40 bags on a pallet
- Big bags -1000 L big bags

Other packing considered on request



SIMPLE REGENERATION WITH OXYDES-P



CATALYTIC CARBON® can be re-activated like brand new Carbon with following cycles for regeneration:

1. **Backwash** – 5 minutes
2. Suction of (**OXYDES-P**) – 15 minutes
3. **Allow to soak** (30 to 60 min)
4. **Fast rinse** – 10 minutes
5. **Back to service**

CONTACT US

WATCH WATER CARBONS
Fahrlachstr. 14,
68199 Mannheim,
Germany

Tel: +49 (0) 621 87951 51 0
Fax +49 (0) 621 87951-99
Email: info@watchwater.de
Website: www.watchwatercarbons.com