

# CATALYTIC CARBON - MG

Magnesium Coated Coconut Shell Activated Carbon

## INTRODUCTION

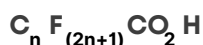
The latest emerging technology for the removal of **Perfluorinated Compounds (PFCs)** is Watch Water's adsorption treatment technology - **Catalytic Carbon®-MG**, which is **Zero Valent Iron (ZVI)** coated activated carbon with a **MgO surface**.

This means **Catalytic Carbon®-MG** is the only granular material available in the market with a highly positive surface, which is very important to break down a long chain of perfluorinated compounds. It offers for direct degradation of **Perfluorinated compounds (PFCs)** and removal of **PFOA equal to 95%**.

In addition, **CATALYTIC CARBON® -MG** can be regenerated on site, by applying our **SolarOxy-3C** oxidant (powder oxidant), which allows it to have a lifetime between 2 to 5 years.

## VARIOUS COMPOUNDS REMOVED

- Perfluorooctanoic Acid (**PFOA**)
- Perfluorinated Carboxylic Acids (**PFCAs**)



With Great Hydrophobic character

- Fluorosurfactant fluorinated substances
- Perfluorinated Alkylated substances (**PFASs**)



## ADVANTAGES

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

## TYPICAL APPLICATIONS

- Drinking Water Purification
- Point of Use (POU)/Point of Entry (POE)
- Residential and Commercial Water Treatment
- Municipal and Community Water Treatment
- Beverage Production
- Process Water and Ultra Pure Water

# TECHNICAL DATA

## CATALYTIC CARBON® MG

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	Greenish black
Particle Size	0.6 - 2.4 mm
Mesh Size(US)	8x30
Surface area (BET)	2000 – 2500 m2/g
Moisture Content	5% (Max.)
Ball Pen Hardness	98% (Min.)
Bulk Density	630-640 kg/m3
pH	9.5
Expected Service Life	2-5 Years*
Multiple Regeneration	Yes**

\* Depending on the contamination load and regeneration frequency

\*\* **CATALYTIC CARBON®-MG** can be regenerated using SolarOxy-3C depending on the loaded contaminants

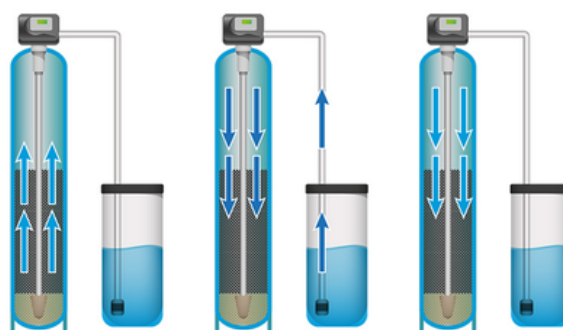
## PACKAGING

- 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 SolarOxy-3C



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

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

## CONTACT US

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