

# ACTIFLO® CARB

Optimum treatment for natural organic matter and micropollutants/Water purification and refinement

## Highly effective treatment

Designed to treat and refine water, **Actiflo Carb** combines the fast flocculation and sedimentation performance of Actiflo with the adsorption capacity of **Powdered Activated Carbon (PAC)** to eliminate substances resistant to the clarification process.

The adsorbent properties of PAC offer an effective solution for **the elimination of non-flocculable Natural**

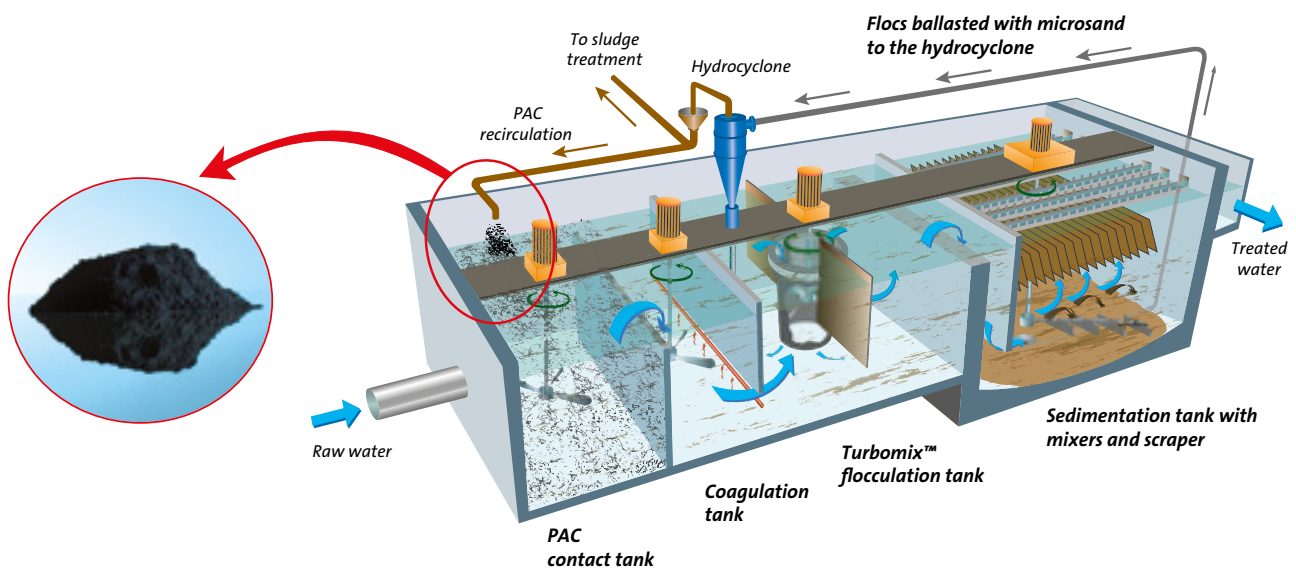
**Organic Matter (NOM)**, micro-algae, flavors and odors, pesticides, endocrine disruptors and other emerging micropollutants in the water to be treated.

The unparalleled performance of Actiflo Carb produces water of very high quality.

## The Actiflo Carb process

The operating characteristics of Actiflo Carb are identical to those of Actiflo, giving it the advantages of fast, high-performance treatment. Upstream of the **coagulation, flocculation and sedimentation basins**, Actiflo Carb has a **PAC contact tank** to adsorb pollutants resistant to chemical clarification.

A recirculation circuit with a specific hydrocyclone recovers clean microsand, returns the PAC to the contact tank and purges excess sludge from the process.



## Advantages

- Advanced PAC treatment
- Maximum elimination of NOM and emerging micropollutants
- Refinement of the treated water
- Compatible with other clarification processes upstream: Actiflo, Multiflo™, Spidflow® and other sedimentation flotation tanks
- High sedimentation speed:  $\geq 30$  m/h
- Small footprint
- Simple to commission: start-up in a few minutes
- Easy, low-cost upgrading of existing installations

## Applications

Actiflo Carb is recommended for:

- Drinking water: for the treatment of NOM resistant to clarification, pesticides, emerging micropollutants, micro-algae, flavors and odors
- Process water: for refining and treating resistant NOM
- Sewage: to eliminate hard Chemical Oxygen Demand (COD) and other compounds resistant to chemical or biological treatment systems
- “Reuse”: for the advanced tertiary treatment and refinement of treated sewage

## Actiflo Twin Carb, a dual-stage treatment

Depending on the quality of the water to be treated and the performance to be achieved, the Actiflo Carb process is also available in an **Actiflo Twin Carb** version. This unique configuration consists of a dual-stage treatment in series, amplifying the elimination of NOM and reducing the footprint.

This dual-stage treatment involves an Actiflo clarification stage followed by an Actiflo Carb refinement stage. Particularly well-suited to treating water with a high pollutant content, Actiflo Twin Carb can reduce a Total Organic Carbon (TOC) level of 15 mg/l in the raw water to less than 2 mg/l in the treated water.

## REFERENCES

### ACTIFLO® Carb

- > Harpeth Valley UD, Nashville, TN, USA - 90,000 m<sup>3</sup>/day (2015)
- > DSM Nutritional Products, Village-Neuf, France - 2,400 m<sup>3</sup>/day (2014)
- > Raffineria di Milazzo, Italy - 7,200 m<sup>3</sup>/day (2014)
- > La Chesnaie, France - 12,000 m<sup>3</sup>/day (2013)
- > Fuyang, Zhejiang, China - 250,000 m<sup>3</sup>/day (2012)
- > Medias, Romania - 16,000 m<sup>3</sup>/day (2012)
- > TW Moses, Indianapolis, IN, USA - 91,000 m<sup>3</sup>/day (2011)
- > Montry, France - 11,000 m<sup>3</sup>/day (2010)
- > Huntsman, Qingdao, China - 1,000 m<sup>3</sup>/day (2009)

### ACTIFLO® Twin Carb

- > Nantes La Roche, France - 160,000 m<sup>3</sup>/day (2016)
- > Parker WSD, CO, USA - 38,000 m<sup>3</sup>/day (2015)
- > Vitré La Grange, France - 14,000 m<sup>3</sup>/day (2014)
- > Cholet, France - 34,000 m<sup>3</sup>/day (2014)
- > Mervent, France - 24,000 m<sup>3</sup>/day (2013)
- > Pont-Scorff, France - 6,000 m<sup>3</sup>/day (2012)
- > Durtal, France - 4,800 m<sup>3</sup>/day (2011)
- > Aire-sur-la-Lys, France - 109,000 m<sup>3</sup>/day (2010)
- > Perros-Guirec, France - 10,000 m<sup>3</sup>/day (2009)
- > Lucien Grand, La Rochelle, France - 72,000 m<sup>3</sup>/day (2009)