



  
**KALIMATI**  
THE CARBON COMPANY  
ISO 9001:2008

Activated Carbon



## How does Activated Carbon work?

Due to its large surface area and specific surface chemistry, activated carbon can adsorb large quantities of dissolved organic pollutants from water into its internal pores. A general rule of thumb to determine how well the compound will be adsorbed is the more hydrophobic (or less water soluble), the more adsorbable the compound.

Adsorbability	Example of compounds
Very good	Naphtalene, Bisphenol-A, Oestradiol
Good	Benzene, Phenol, Tetrachloroethylene
Moderate	Chloroform, Monochloroethane
Poor	Dichloromethane
Very poor	Methanol, Acetone

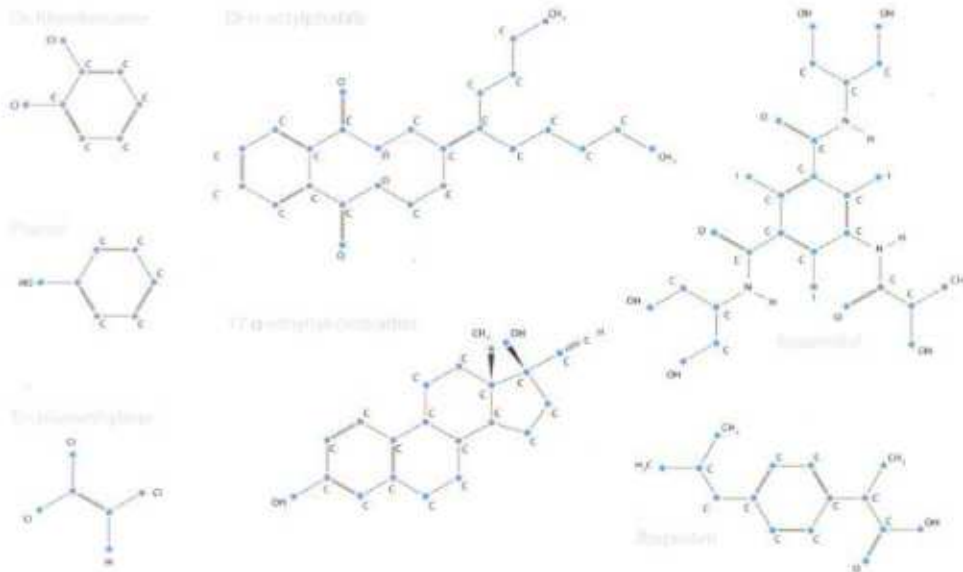


## PAC and GAC Whats the difference?

Generally, in order to remove biodegradable compounds and suspended solids from wastewater treatment methods such as bio-treatment, clarification and mechanical filtration are used. Activated carbon is mainly used for polishing purposes. The position of PAC or GAC in the process is outlined below. The best option PAC or GAC is determined on a case-by-case basis. The table summarizes the major features of each product.

### PAC verses GAC in waste water treatment

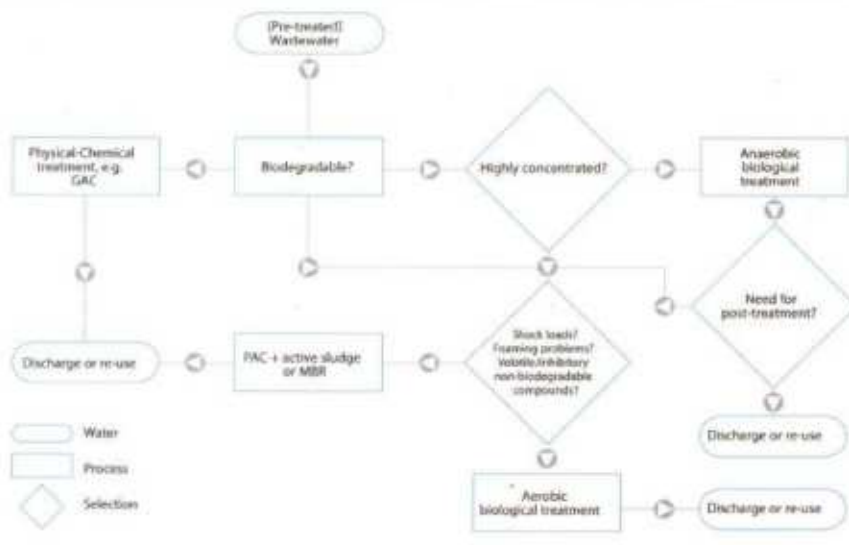
FEATURE	PAC	GAC
Low residual concentration level achieved	•	••
Achievable loading	•	••
Capital costs involved	••	
Regeneration possible		
• reasonable/good		
•• very good		



## Application Support

In addition to selecting an activated carbon grade it is important to ensure proper and optimal use, Kalimati actively support customers in the correct application of our products. Our application specialists are happy to share their extensive experience in the field of Purification of Pharmaceuticals, Water Treatment etc. Examples of our assistance include:

- Selection of suitable activated carbon grades
- Set up and execution of pilot trials
- Optimization of PAC grades and dosing level
- GAC performance/Cost Optimization
- Analysis of PAC or GAC samples
- GAC reactivation studies





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