

Frequently Asked Questions

What is PerfluorAd®? A proprietary liquid blend that gets dosed to contaminated water for removing PFAS as a pre-treatment step of a GAC system.

How does it work? A difference in electrical charge between PerfluorAd® and PFAS forms a connection stable enough for generating flocs. The floc created is large enough to be removed via filtration (bag or sand filter).

What happens with the particles that are removed? Sludge from backwashing of sand filters are collected in a tank, then sent to incineration.

What is the performance? Depending on the number of PFAS compounds, it can be up to 99.9% for removal of PFOS, and 85 to 95% for PFAS. In the case of PFAS, this includes about 23 compounds (including 3 telomers).

Has PerfluorAd® been field-tested? Yes, both as a single-point treatment and compared to a GAC system.

Does groundwater chemistry play an important role? The groundwater chemistry has no impact on the performance of PerfluorAd. But groundwater chemistry is important for the GAC part of the treatment system.

What is the minimum concentration for considering use of PerfluorAd®? For PFOS contamination (and similar sized compounds) about 250 ppt (ng/l). For normal PFAS (23 or similar) about 750 ppt is typical.

Is there a maximum value of PFAS that PerfluorAd® can treat? We have tested water samples with 3400 ppb (µg/l) of PFAS and removed 91% of them. The higher the concentration of PFAS the more beneficial the application of PerfluorAd will be.

What is the bench testing approach to determine performance rate for a specific site? In our lab in Germany we evaluate the rate by running a test using about 10 Litres of contaminated water from the site. We test at different dosing rates that will determine the most suitable dosing rate of PerfluorAd® and the corresponding performance rate.

Does the dosing rate of PerfluorAd® always stay the same? No, the dosing rate gets adjusted to the PFAS concentration. This is a distinct advantage of using PerfluorAd, you can adjust the dosing rate based on changes in the PFAS concentrations.

Can the use of PerfluorAd® be added to an existing or planned GAC system? In a normal treatment configuration PerfluorAd® acts as a pre-treatment system. Carbon will provide polishing for the remaining PFAS.

What are the main benefits of using PerfluorAd® for pre-treatment?

- Not an adsorption process
- Removes bulk of the PFAS
- Infinitely adjustable
- Unaffected by pH, DOC, suspended solids, co-contaminants
- Cost savings vs. activated carbon or ion exchange processes

What are the key Applications of PerfluorAd®

- Recovered fire-fighting fluids
- AFFF rinse and treatment of fire trucks, airfield crash tenders and fixed extinguishing systems
- Groundwater & landfill leachate
- Industrial process water