

# PERFORMANCE VALIDATION REPORT

Pallas Ultra

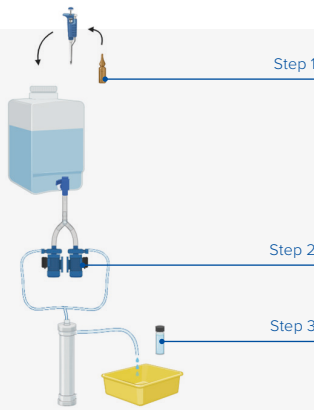
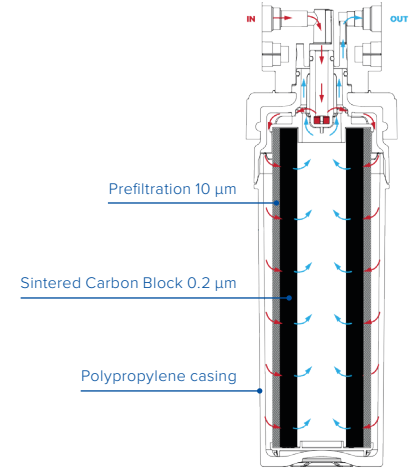


PFAS (Per/Poly Fluoroalkyl) substances) are anthropogenic compounds that have been used for many decades in industrial and commercial application. Their unique properties of resistance to heat and water have made them popular in products such as waterproof fabrics and firefighting foams. However, their strong chemical structure makes their breakdown very difficult and this results in their persistence in the environment and the human body. Consumption of drinking water contaminated with PFAS may result in adverse health effects including developmental issues, hormone disruption and increased risk of certain cancers. The European drinking water directive mentions a limit value of 100 ng/L for PFAS 20 as well as a limit of 500 ng/L for total PFAS concentration. **The purpose of this testing was to validate the removal efficiency of PFAS.**

## Pallas Ultra

Technical data	Medium
Nominal filtration	0,2 micron
Nominal flow rate	5 L/min
Pressure drop at nominal flow rate	0,55 bar
Technology	Co-sintered carbon block with chelating media
Total PFAS reduction based on NSF/ANSI 53	>99%

Order info	Pallas Ultra
AX reference	1762010015/MEDIUM
D365 reference	13670000137

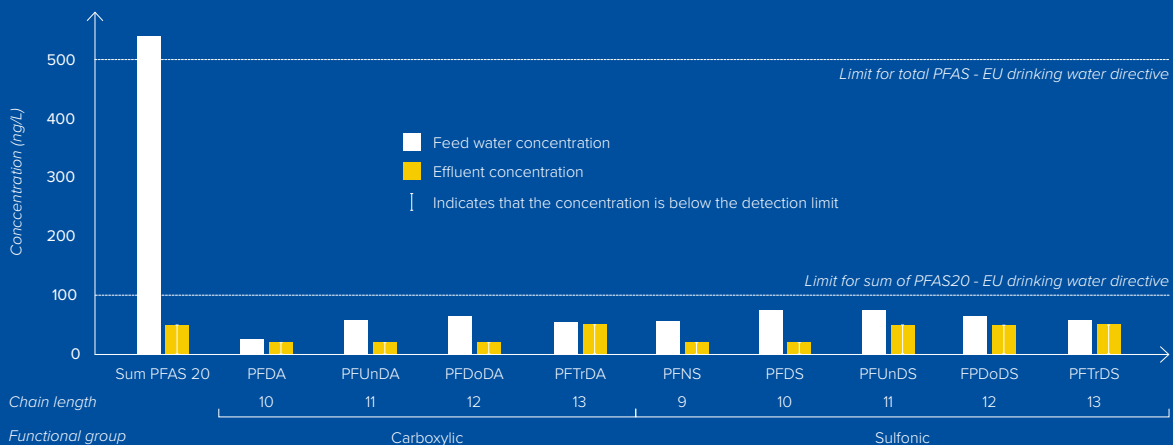


### Set up and test

- 1 Spiking of tap water with PFAS 20 resulting in an inlet concentration of 0,54 µg/L.
- 2 Two pumps are used to pump the spiked water from the container through the Pallas Ultra cartridge at 5 LPM.
- 3 Sample taking of the first and last 5 liters of effluent.

## Results

The Pallas Ultra cartridge removed all PFAS effectively, with all the effluent values reported under the detection limits (< 0.02–0.05 µg/L). The minimum removal efficiency was above 90%, demonstrating strong adsorption performance. Because the effluent values were below the detection limits, the exact removal efficiency cannot be determined.



\*PFTriDA, PFODA, PFDoDS, PFUnDS, PFTriDS, 10:2 FTS, 6:2 diPAP, 6:2/8:2 diPAP and 6:2 FTS cannot be quantitatively determined due to insufficient recovery and adsorption. However, these PFAS have been indicatively calculated to have a total PFAS20 of 0,5µg/l.  
\*Analysis of the testing is available on request.