PURELY

Performance Data Sheet

Last updated: October 30, 2026

FILTRATION SYSTEM	CONFIGURATIONS	INDEPENDENTLY LAB TESTED	TESTED AGAINST REQUIREMENTS
P1+ Defender	1-, 2- & 4-Stage	SGS	NSF/ANSI 42 & 53

The testing presented below is representative of the NanoFiber™ filtration media and technology used in the P1+ Defender series. The media has been independently laboratory tested and evaluated against the applicable NSF/ANSI reduction requirements for the contaminants listed below.

Table 1 – P1+ Defender Whole-Home Filter Specifications & Filter Capacity

Model	Replacement	Rated Capacity (Chloramine / Chlorine)§		Recommended Capacity (Chloramine / Chlorine)§		Operating Temperature	Max Pressure	Rated Flow
P1+ Defender 1-Stage	P1+ 1-Stage Replacement Kit	**25,458 L** 6,725 gal	**76,374 L** 20,176 gal	**46,798 L** 12,363 gal	**244,398 L** 64,563 gal	4–32°C 40–90°F	827 kPa 120 psi	8 L/min 2.1 GPM
P1+ Defender 2-Stage	P1+ 2-Stage Replacement Kit	**50,916 L** 13,451 gal	**152,748 L** 40,352 gal	**93,596 L** 24,725 gal	**488,796 L** 129,127 gal	4–32°C 40–90°F	827 kPa 120 psi	16 L/min 4.2 GPM
P1+ Defender 4-Stage	P1+ 4-Stage Replacement Kit	**101,832 L** 26,901 gal	**305,496 L** 80,704 gal	**187,191 L** 49,450 gal	**977,592 L** 258,253 gal	4–32°C 40–90°F	827 kPa 120 psi	32 L/min 8.5 GPM

§ Capacity depends on the disinfectant used by your municipality. In chloraminated water, chloramine reduction is the limiting factor for both rated and recommended capacity. In chlorinated water, lead reduction is the limiting factor for rated capacity and free chlorine reduction for recommended capacity.

Table 2 – SGS-Tested Contaminant Reduction Claims

System Variant	Contaminant Tested	Tested Influent (ppm)	Recorded Effluent (ppm)	NSF/ANSI (42 & 53) Reduction Requirement		Reduction (%) at Claim Point‡	Meets NSF Standards? (Y/N)	Average Municipal Influent Conc. (AMIC) (ppm)	Theoretical Max Capacity @AMIC w/ ≥90% Reduction (L)*
P1+ Defender 1-Stage	Free Chlorine	2	0.2	2 ppm → ≤ 1 ppm	50%	**≥90%** at 122,199 L	Y	≥1	244,398
	Lead (pH 6.5)†	0.15	0.015	0.01 ppm → 0.005 ppm	50%	**≥90%** at 76,374 L	N	0.001	11,456,100
	Chloramine	3	0.5	3 ppm → ≤ 0.5 ppm	83.33%	**≥83.33%** at 25,458 L	Y	≥1.7	46,798
P1+ Defender 2-Stage	Free Chlorine	2	0.2	2 ppm → ≤ 1 ppm	50%	**≥90%** at 244,398 L	Y	≥1	488,796
	Lead (pH 6.5)†	0.15	0.015	0.01 ppm → 0.005 ppm	50%	**≥90%** at 152,748 L	N	0.001	22,912,200
	Chloramine	3	0.5	3 ppm → ≤ 0.5 ppm	83.33%	**≥83.33%** at 50,916 L	Y	≥1.7	93,596
P1+ Defender 4-Stage	Free Chlorine	2	0.2	2 ppm → ≤ 1 ppm	50%	**≥90%** at 488,796 L	Y	≥1	977,592
	Lead (pH 6.5)†	0.15	0.015	0.01 ppm → 0.005 ppm	50%	**≥90%** at 305,496 L	N	0.001	45,824,400
	Chloramine	3	0.5	3 ppm → ≤ 0.5 ppm	83.33%	**≥83.33%** at 101,832 L	Y	≥1.7	187,191

‡ Claim point: the reduction shown is the SGS result recorded at the throughput listed beneath it.
† Lead was reduced by ≥90%, but at this throughput the effluent (0.015 ppm) exceeded the NSF/ANSI 53 maximum of 0.010 ppm, so it is not NSF/ANSI 53 compliant.
* Theoretical capacity based on average municipal influent concentrations (AMIC).

Table 3 – Microplastic Reduction Claims

Microplastics	NSF/ANSI 42 Minimum Reduction Requirement	Reduction (%)	Meets NSF Standards? (Y/N)
Particulate Class I (particles 0.5 to <1 µm)	≥85%	>99%	Y

DEFINITIONS & SOURCES

1-, 2- & 4-Stage — the number of filter cartridges in the system, operating in parallel. Capacity and rated flow scale with the number of cartridges.

NSF/ANSI 42 & 53 — standards for drinking water treatment units covering aesthetic effects (42) and health effects (53). The P1+ Defender was tested against NSF/ANSI 42 & 53 requirements; results are shown against their reduction requirements.

AMIC — Average Municipal Influent Concentration: a typical concentration in treated municipal water, used to estimate theoretical filter capacity.

SGS — independent third-party testing laboratory that performed the SGS-tested contaminant and microplastic reduction testing (Tables 2 & 3).

Claim point — the SGS test point at which each reduction value in Table 2 was recorded; its throughput is shown beneath the value, and the Meets NSF Standards column shows whether each result met the requirement.

PFAS (Table 4) — published research on activated carbon home filters, shown as technology background only. The P1+ Defender has not been tested for PFAS.

SGS

Independently laboratory tested by SGS and other third-party laboratories to verify performance against strict quality and testing standards. Full NSF certification is currently in progress and remains a key priority, with completion targeted for mid-2027. This document is provided for informational purposes only and is not an NSF certification or official certification listing.

PFAS Reduction: Published Research

Health Canada identifies granular activated carbon among the most effective treatment technologies for PFAS (over 90% removal for certain PFAS), and notes that residential treatment devices can be certified to NSF/ANSI 53 for PFAS reduction.[1]

The US EPA lists granular activated carbon as a Best Available Technology for PFOA, PFOS, PFHxS, PFNA and HFPO-DA (GenX) under its 2024 PFAS drinking water rule.[2]

Table 4 – Published research: activated carbon home filters

Compound	Activated Carbon Media Home Filters: under-sink carbon block‡
PFOS	98%*†
PFOA	99%*†§
PFHxS	98%*†

[1] Health Canada, Objective for Canadian Drinking Water Quality: PFAS (2024), canada.ca/en/health-canada/services/publications/healthy-living/objective-drinking-water-quality-per-polyfluoroalkyl-substances.html

[2] US EPA, Best Available Technologies and Small System Compliance Technologies for PFAS in Drinking Water (2024); 40 CFR 142.62. epa.gov/system/files/documents/2024-04/2024-final-pfas-bat-ssct_final-508.pdf

* Modelled removal for the compound class, not per compound: sulfonates (PFOS, PFHxS) 98% (95% CI 95–99%); carboxylic acids (PFOA) 99%. Across all 17 PFAS detected: 99% (95% CI 97–99%).

† In 18 homes (Mulhern et al. 2021), combined effluent of 11 PFAS never exceeded 7.9 ng/L (estimated; most results below detection) across 210–4,655 L treated per filter over 8 months (filter rated capacity 2,967 L). Influent PFAS were low (sum ≤76 ng/L; PFOS max 26.3 ng/L).

§ Estimate not statistically significant because PFOA influent levels were mostly below the reporting limit.

‡ Source: Mulhern et al. 2021, *AWWA Water Science*, doi.org/10.1002/aws2.1262 (18 NC private-well homes, NSF P473-certified under-sink carbon blocks).

Important: Values reflect a published peer-reviewed study of activated carbon home filters (Mulhern et al. 2021) under its test conditions. They are not test results for this product. Performance of this product for these compounds has not been independently tested or certified (for example, to NSF/ANSI 53). Actual reduction depends on water quality, flow rate and filter age, and removal declines as the filter is used.