



## HF<sup>X</sup>™ Series – Housing Filtration Excellence Engineered for Performance

### HF<sup>X</sup>-PL-GFPP™ – Glass-Filled Polypropylene Plastic Bag Housing Technical Overview

Filtracore Asia's **HF<sup>X</sup>-PL-GFPP™ – Glass-Filled Polypropylene Plastic Bag Housings** are engineered for demanding liquid-filtration duties in chemical processing, water treatment, and general industrial service. Constructed from **reinforced glass-filled polypropylene**

**(GFPP)**, the housing provides higher mechanical strength, stiffness, and dimensional stability than standard polypropylene, ensuring reliable operation in corrosive and saline environments where metal housings are unnecessary.



The housing accepts **standard #02 size filter bags** and is also available for **#01 size** on request. It accommodates **felt, mesh, or pleated filter bags** across a wide micron range and supports common ring and snap-fit sealing geometries for straightforward integration. The GFPP body is **rated to 6 bar at 20 °C**, with pressure de-rating required at elevated temperatures and a maximum service limit of approximately **80 °C**.

A **one-piece moulded thermoplastic construction** with smooth internal surfaces minimises dead zones, aids cleaning, and reduces contamination risk. Closure options include a **tool-free hand-nut** as standard or an **optional clamp-ring**, with **vent and drain ports** available for safe depressurisation, sampling, and cleaning.

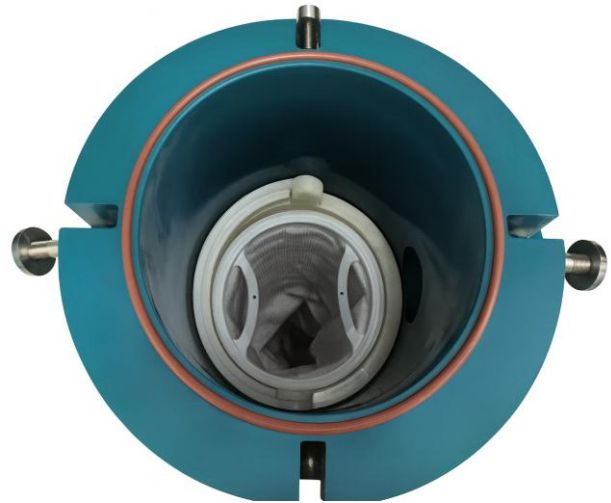
Lightweight yet rugged, the HF<sup>X</sup>-PL-GFPP™ simplifies installation and handling, **reducing retrofit requirements** and enabling manual placement without lifting equipment. Designed around **industry-standard #1 and #2 bag interfaces**, it offers practical dimensional compatibility with many leading thermoplastic bag

housings when connection sizes and mounting footprints are verified, making it a dependable replacement or upgrade for **space-limited skids, pilot plants, and production systems** requiring **corrosion resistance, clean operation, and rapid change-out**.

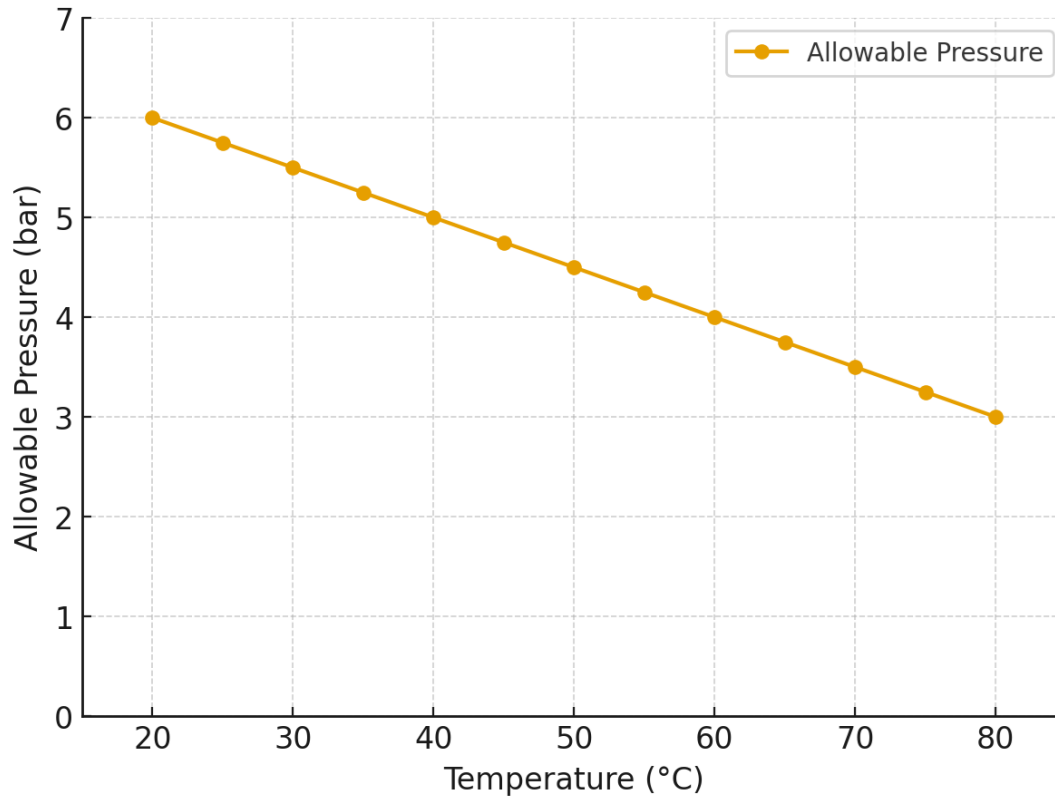
***Engineered for Strength. Built for Resistance. Trusted in Liquid Filtration.***

## Technical Specifications

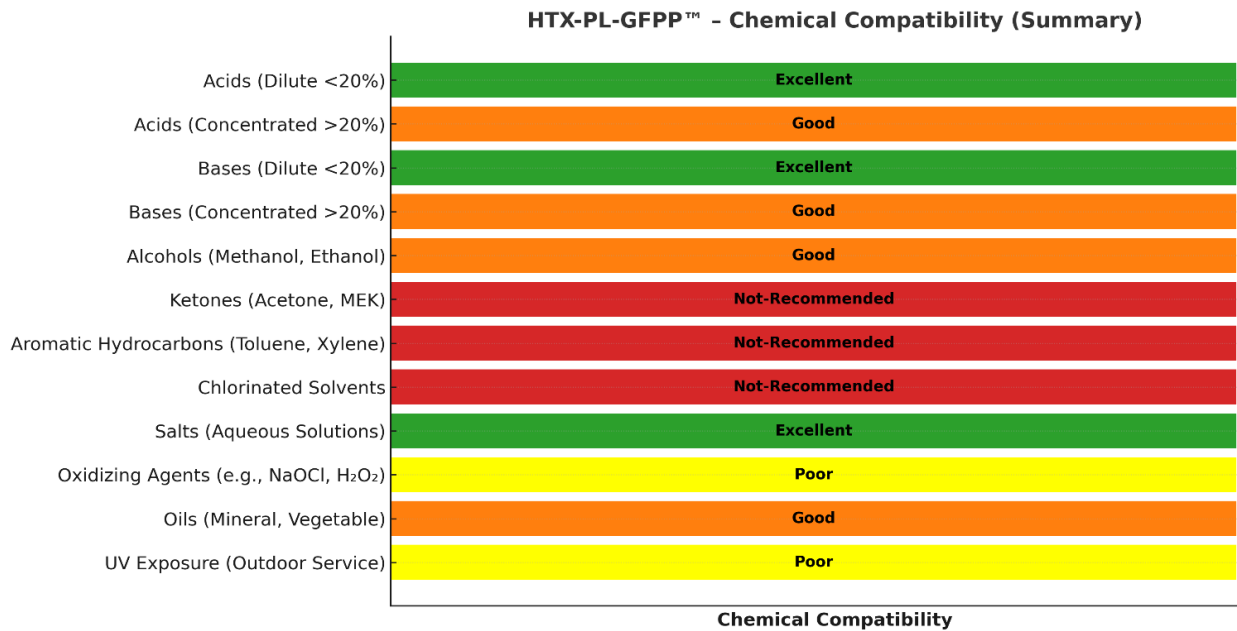
- **Model:** HFX-PL-GFPP™ – Glass-Filled Polypropylene Single-Bag Housing
- **Filter compatibility:** Standard #02 size filter bags in felt, mesh or pleated media; #01 size available on request
- **Housing material:** **Glass-filled polypropylene (GFPP)**, industrial-grade thermoplastic for strength and chemical resistance
- **Basket material:** Polypropylene perforated support basket, fully non-metallic and corrosion-resistant
- **Seal options:** EPDM, Buna-N, Viton®; PTFE-encapsulated elastomers available on request (pressure/temperature limits depend on gasket selection)
- **Closure options:** Tool-free hand-nut standard; clamp-ring available on request
- **Inlet/Outlet connections:** BSPT or NPT threaded (typical 1–2 in); ANSI/DIN flanged variants available for specified models
- **Vent & drain ports:** Optional vent (top) and drain (bottom) for safe depressurisation, sampling and cleaning
- **Pressure rating:** 6 bar at 20 °C maximum allowable working pressure (MAWP); pressure de-rates with temperature
- **Temperature range:** 0 °C to 80 °C continuous duty, subject to pressure derating and gasket selection
- **Flow range:** Up to ~40 m<sup>3</sup>/h with #02 bag, depending on fluid viscosity, micron rating and allowable  $\Delta p$
- **Surface finish:** Smooth internal GFPP surfaces; all wetted components non-metallic
- **Colour:** UV-stabilised black as standard; alternative colours available on request subject to material verification
- **Mounting:** Base-mounted with moulded support feet; suitable for floor or skid installation
- **Compliance options:** Food-contact compliant variants available (FDA 21 CFR; NSF/ANSI 61; EU 1935/2004 & 10/2011) when specified
- **OEM compatibility:** Accepts #1/#2 filter bags and common sealing geometries used in many thermoplastic housings (e.g. Pentair®, Hayward®, FCP®); verify port centres, footprint and closure type before retrofit



## Pressure Rating Derating vs. Temperature<sup>1</sup>



## Chemical Compatibility<sup>2</sup> (Summary)



<sup>1</sup> Derating shown is typical for GFPP housings (6 bar @ 20 °C, falling to ~3 bar @ 80 °C). Values are representative; always confirm model-specific ratings and applicable standards for your installation. Pressure performance is validated by hydrostatic burst testing and long-term creep resistance, not by wall thickness. Refer to derating chart for application-specific limits.

<sup>2</sup> Compatibility ratings are general guidelines for GFPP housings. Actual suitability depends on concentration, temperature, exposure time, additives, and elastomer selection (EPDM/Buna-N/Viton®). For borderline fluids (strong oxidizers, aromatics, chlorinated solvents), consider PVDF or metal and validate with pilot tests.

All data, dimensions, and ratings are provided for general reference only. FiltraCore thermoplastic housings are designed and hydrotested in accordance with relevant industry standards; however, actual performance will vary with process conditions, media, and installation. Maximum operating pressure and temperature are subject to material selection, gasket/elastomer choice, and published pressure-temperature derating curves. Standard rating is 6 bar (87 psi) @ 20 °C, with maximum operating temperatures of 60 °C for PP, 80 °C for GF-PP, and 120 °C for PVDF (subject to derating).

Chemical compatibility of housing materials, seals, and gaskets with the process fluid is the sole responsibility of the user; data provided are general guidelines derived from industry sources and laboratory testing, and actual performance may vary with concentration, temperature, and process variables.

Wetted parts in PP, GF-PP, or PVDF provide broad resistance to aqueous solutions and many process chemicals, while elastomer options (EPDM, Viton®, PTFE, PTFE-encapsulated) extend compatibility across most industrial and sanitary applications. For specific chemical resistance, consult the FiltraCore Chemical Resistance Guide or contact our technical team.

FiltraCore assumes no liability for improper use, chemical incompatibility, installation, or operation beyond published ratings. Specifications are subject to change without notice as part of continuous product improvement.

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