



LFX™ Series – Liquid Filtration Excellence Engineered for Results

LFX-PP™ – Polypropylene Filter Bags Technical Overview

Filtracore Asia's **LFX-PP™ Polypropylene Filter Bags** are designed for **general-purpose liquid filtration** where **chemical resistance, high dirt-holding capacity,** and **cost-efficient performance** are required. Constructed from **100% needle-punched polypropylene felt**, the depth-loading media provides **nominal retention from 1 µm to 200 µm**, ensuring effective particulate removal while maintaining **low initial pressure drop**.

The **polypropylene media** delivers broad compatibility with **aqueous fluids, oils, hydrocarbons, and most organic solvents**, while exhibiting **limited resistance to strong oxidising agents or highly concentrated acids and alkalis**. With **continuous service temperature up to ~90 °C (194 °F)** and **short-term tolerance approaching 100 °C (212 °F)**, LFX-PP™ is well suited for



applications in **chemical processing, coatings, water treatment, and food & beverage systems** where operating conditions demand both reliability and compliance.

Available in **standard trade sizes (#01–#04)** and offered with **moulded polypropylene, polyester, galvanized steel, or stainless steel rings**, LFX-PP™ integrates seamlessly¹ into **industry-standard bag housings**. Options such as **glazed or singed surfaces** minimize fibre migration, while **welded-seam variants** can further reduce bypass risk in critical services.

By combining **durable construction, predictable retention,** and **high dirt-loading capacity**, LFX-PP™ supports **longer filtration cycles** and **reduced change-out frequency**, helping engineers **maximize system uptime** and **lower total operating costs**.

Engineered Performance. Trusted Compatibility. Proven Value.

Technical Specifications

- **Material:** 100 % polypropylene needle-punched felt (depth-loading, non-woven media)
- **Micron Ratings:** 1 – 200 µm nominal (typical ≥ 90 % retention at rated micron)
- **Operating Temperature:** Up to 90 °C continuous; short-term excursions up to 100 °C
- **Construction:** Fully welded seams as standard
- **Collar / Ring Options:** Moulded polypropylene or polyester flange; 304/316 stainless steel or galvanised steel snap-rings; snap-seal or welded ring designs available
- **Surface Treatment Options:** Glazed or sined finish to minimise fibre shedding and media migration
- **Compliance:** Food-contact-compliant variants available (FDA 21 CFR; EU 1935/2004 & 10/2011), subject to certification
- **Recommended ΔP Change-out:** 0.8 – 1.5 bar
- **Maximum Differential Pressure:** 2.5 bar at 20 °C (bag and housing integrity limit, not a continuous operating target)
- **Chemical Compatibility:** Excellent with water, aqueous solutions, oils, hydrocarbons, and many organic solvents; fair with concentrated acids/alkalis; not recommended for strong oxidising agents or aromatic solvents
- **Add-Ons:** Extended-length bags, integrated handles, internal support scrims, custom sizing, and batch traceability on request



Nominal Dimensions & Effective Filter Area

Size Code	Nominal Dimensions (mm/inches)		Effective Filter Area (m ²)
Size 01	∅ 180 x 430	∅ 7 x 17	0.24
Size 02	∅ 180 x 810	∅ 7 x 32	0.48
Size 03	∅ 100 x 230	∅ 4 x 9	0.08
Size 04	∅ 100 x 380	∅ 4 x 15	0.16

Recommended vs. Maximum Flow Rates

Size Code	Recommended Flow Rates ² (m ³ /h)	Maximum Flow Rates ³ (m ³ /h)
Size 01	4.4 to 7.3	Up to 20
Size 02	8.2 to	Up to 40
Size 03	1.3 to 2.2	Up to 6
Size 04	2.1 to 3.6	Up to 12

¹ Compatibility is based on standard dimensions, ring types (welded/snap/steel), and micron ranges common across major housing manufacturers. Always verify final fit and sealing with housing type prior to use.

² These figures are based on filtration of clean, water-like fluids with a dynamic viscosity of ~1 mPa·s (~1 cP) at 20 °C, using standard micron ratings (5–25 µm).

³ Maximum flow rates may be reached when operating under optimal conditions, including: low-viscosity liquids, coarse micron ratings (≥100 µm), elevated system pressures, or short filter lifespans in properly sealed housing systems. Actual performance depends on fluid viscosity, contaminant load, pressure differential, and system configuration. Operating above recommended flow may shorten filter life or reduce filtration efficiency.

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