

# Hall Pyke



**Membrane Filtration**

# **Super-Dura Hydrophilic PTFE**

**The SMART choice for filtration**

# Super-Dura® Filter Cartridges

Hydrophilic PTFE Membrane · Sterile Liquid Filter

**Super-Dura®** Filter Cartridges are designed for the majority of pharmaceutical liquids, but especially for solvent-containing liquids and ophthalmic solutions. These filters are composed of a hydrophilic PTFE membrane which provides excellent chemical and heat tolerance.

## Features and Benefits

- Hydrophilic PTFE membrane which requires no pre-wetting
- Excellent chemical compatibility especially for solvent-containing liquids
- Minimal preservative binding in ophthalmic solutions
- Clean membrane with very low gravimetric extractable

## Quality Standards

- Bacterial quantitative retention of  $10^7$  CFU/cm<sup>2</sup> *Brevundimonas Diminuta* (ATCC 19146) according to ASTM F838 methodology.
- 100% Integrity testing in manufacturing.
- Each filter is fully traceable with unique serial number.
- Manufactured in a facility which adheres to ISO 9001: 2015 Practices.
- Full Regulatory Compliance with following :
  - Bacterial Endotoxin: Aqueous extraction of autoclaved filter contains <0.25 EU/ml as determined by Limulus Amebocyte Lysate (LAL), USP<85>.
  - Non-fiber Releasing: Component materials meet the criteria for a "Non-fiber-releasing filter" as defined in 21 CFR 210.3(b)(6).
  - Component Material Toxicity:
    - Meet the requirement of USP <87> In Vitro Cytotoxicity Test;
    - Meet the Criteria of USP<88> Biological Reactivity Test for Class VI-121°C plastics.
  - TOC / Conductivity at 25 °C: Autoclaved filter effluent meet the USP<643> for Total Organic Carbon and USP<645> for Water Conductivity per WFI requirements after a UPW flush of specified volume.
  - Particle Shedding: Autoclaved filter effluent meet the USP<788> for large volume Injections.
  - Indirect Food Additive: All component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182, and EU framework regulation [1935/2004/EC].

## Typical Application

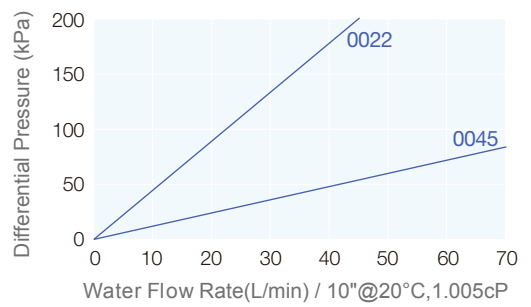
- Antibiotics
- LVP & SVP
- Large Batch Solutions
- Ophthalmic Solutions
- Disinfectants and Sanitizing Agents



## Materials of Construction

<b>Filter Media</b>	<b>SLHPF</b> Single-Layer Hydrophilic PTFE Membrane
	<b>DLHPF</b> Double-Layer Hydrophilic PTFE Membrane
<b>Support</b>	Polypropylene
<b>Core/Cage/End Caps</b>	Polypropylene

## Flow Rate Characteristics



## Operating Conditions

<b>Max. Operating Pressure</b>	6.9 bar (100 psi) at 25 °C 4.0 bar (58 psi) at 60 °C 2.4 bar (35 psi) at 80 °C
<b>Max. Differential Pressure</b>	Forward 6.9 bar (100 psi) at 25 °C 4.0 bar (58 psi) at 60 °C 2.4 bar (35 psi) at 80 °C Reverse 3.0 bar (44 psi) at 25 °C 1.0 bar (15 psi) at 80 °C
<b>Effective Filtration Area</b>	0.65m <sup>2</sup> / Φ 69-10 inch

## Sterilization

<b>Inline Steam Sterilization</b>	up to 10 cycles (135°C for 30min < 0.3 bar per cycle), SLHPF up to 35 cycles (135°C for 30min < 0.3 bar per cycle), DLHPF
<b>Autoclave</b>	up to 120 cycles (130°C for 30min per cycle)

## Integrity Test Data

<b>Bubble Point</b>	BP: ≥ 0.32 MPa (water), DLHPF(0.22 μm)
<b>Diffusion Flow</b>	DF: ≤ 30 ml/min/10" @ 0.22 MPa, DLHPF(0.22 μm)

## Ordering Information

SLHPF	Removal Ratings	End Cap	Nominal Length	Seal Material	-P
[Single-Layer]	0022 = 0.22μm	HSF = 226/Fin (PBT Insert)	05 = 5"	S = Silicone	
	0045 = 0.45μm	HSC = 226/Flat (PBT Insert)	10 = 10"	E = EPDM	
	0100 = 1.0μm	HTF = 222/Fin (PBT Insert)	20 = 20"	V = Viton	
		HTC = 222/Flat (PBT Insert)	30 = 30"	P = PFA/Viton	
		DOE = Double Open End	40 = 40"		
<b>DLHPF</b>	2222 = 0.22+0.22μm				
[Double-Layer]	4545 = 0.45+0.45μm				

# Hall Pyke



[www.hallpyke.ie](http://www.hallpyke.ie)

Head Office, 3A Sunbury Industrial Estate, Ballymount Road, Walkinstown, Dublin 12.  
T. +353-1-4501411 F. +353-1-4507960 E. [info@hallpyke.ie](mailto:info@hallpyke.ie) W. [www.hallpyke.ie](http://www.hallpyke.ie)