

Datasheet TechPleat PD

TechPleat PD - Pleated Depth Filter Cartridges

TechPleat PD filter cartridges utilize a high-performance, pleated polypropylene depth media engineered for demanding and critical filtration applications in the Food & Beverage, water treatment, inks and power generation industries.

The media is integrated into a 100% polypropylene hardware assembly, including end caps, core, and protective cage, ensuring broad chemical compatibility.

The thick depth media delivers superior flow rates and low clean differential pressure, while maintaining efficiency. Combining the benefits of depth filtration and pleated media filtration, TechPleat PD elements are ideally suited for applications requiring removal of a broad range of particulate sizes, particularly where high dirt loading or deformable particles and gels are present.

The pleated depth structure enables significantly higher flow rates compared to traditional depth filters, while maintaining high contaminant holding capacity.



Filtration Mechanism

TechPleat PD media is carefully designed to provide graded density throughout the structure, where the more open outer layers capture larger particles, and progressively tighter inner layers provide finer retention at the rated micron level. This allows full utilisation of the depth media and provides a long service life before blockage whilst maintaining filtration efficiency.

Available pore sizes include:

0.5 µm	1 µm	3 µm
5 µm	10 µm	20 µm

Typical Applications

- Process water
- Aseptic processing applications
- Food & Beverage applications
- Edible oils
- Inks and coatings
- Fine chemicals
- Plating solutions
- Bulk chemical processing

Maximum Operating Conditions

Differential Pressure Limits

- Forward flow: 50 psid (3.4 bar) at 20°C (68°F)
- Reverse flow: 40 psid (2.7 bar) at 20°C (68°F)

Operating Temperature

- Maximum continuous temperature: 82°C (180°F) at a differential pressure of 10 psid (0.69 bar) in water

Recommended Cartridge Changeout

- 35 psid (2.4 bar)

Construction Materials

- **Media:** Polypropylene
- **Support Layers:** Polypropylene
- **End Caps:** Polypropylene
- **Inner Core:** Polypropylene
- **Outer Cage:** Polypropylene
- **Construction method:** Thermal bonding
- **O-rings:** Si, EPDM, Viton



Disclaimer

Information provided is based on standard product data and is subject to change without notice. Techno Filter B.V. accepts no liability for incorrect application or improper use of the product.

Regulatory & Safety Compliance

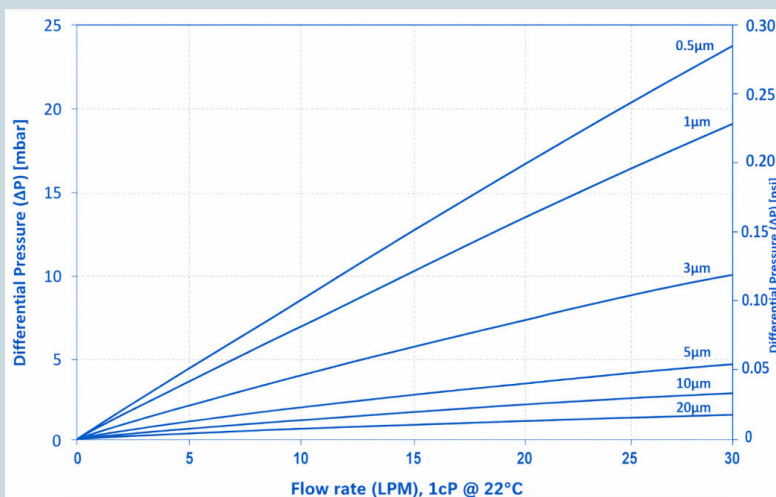
Biological Safety

All materials comply with biological safety requirements in accordance with USP Class VI (tested at 121°C for plastic components).

Food Contact Compliance

- Materials of construction comply with FDA regulations for food and beverage contact per 21 CFR (U.S. Code of Federal Regulations).
- Filter media and hardware materials conform to EU Regulation EC1935:2004 incorporating 10/2011 for food-contact applications.

Flow Rate Data (10" element)



Ordering information

Code	Micron rating (μm)	Length (inch)	End Caps	O-ring
TF-PD	050 - 0.5 μm	5 - 5"	FH - Code 7	S - Silicone
	01 - 1 μm	10 - 10"	EH - Code 8	V - Viton
	03 - 3 μm	20 - 20"	EG - Code 3	E - EPDM
	05 - 5 μm	30 - 30"	AA - DOE	N - Nitrile
	10 - 10 μm	40 - 40"	ZH - 224 / fin	T - FEP
	20 - 20 μm			

Example article code:

TF-PD0120FHE

Example article description:

TechPleatPD 1μm 20" Code 7 EPDM