



Tekfil™ Polypropylene Depth Cartridge Filters

Tekfil™ is a high flow, graded depth filter with high contaminant capacity for long life. Constructed from FDA approved polypropylene with excellent performance characteristics, it is an economic choice for a wide range of applications.

Tekfil™ is available in a range of industrial standard lengths as either absolute or nominal rated cartridges. Also available in nylon construction for solvent filtration.

Applications

Tekfil™ cartridges provide absolute and nominal filtration where the cost of filtration is critical. Suitable for the filtration of aqueous and organic liquids, Tekfil™ cartridges can be used as prefilters or final filters in bulk inkjet filtration. Suitable for manufacture with all major ink types:

- Aqueous
- UV
- Solvent
- Dye
- Pigment

Inprinta bulk filtration provides a low cost product aimed at the highest end of the digital ink manufacturing industry.

Features and Benefits

Tekfil™ cartridges

Extensive research and selection of the latest and most advanced polypropylene meltblown filter media, results in improved performance, leading to extended filter life at a given efficiency.

Graded depth media

The graded structure of the media provides prefiltration of the process fluid prior to the absolute rated final layer. This combination provides economy of use and a smaller process footprint.

High degree of chemical compatibility

Constructed entirely of polypropylene and/or nylon.

Absolute and nominal removal ratings

Tekfil™ cartridges are validated using recognised industry standard test methods.

Environmentally friendly

Tekfil™ filters are environmentally friendly, all spent cartridges can be readily incinerated to trace ash.

Particle retention rating

Code	Pore Rating (microns)	Absolute Rating 99.98% Beta 5000 (microns)	Nominal Rating 99.0% Beta 1000 (microns)	Nominal Rating 99.0% Beta 10 (microns)
TA01	1	0.9	0.35	<0.3
TA03	3	1.8	1.2	1
TA05	5	2.6	1	3
TA10	10	8	7	5
TA25	25	20	13	10
TA50	50	43	35	20
TA75	75	70	55	50
TA100	100	95	84	70

Cartridge construction

The high quality robust polypropylene and/or nylon construction of Tekfil™ cartridges, allows for excellent chemical compatibility with a wide range of bulk inkjet fluids.

The meltblown polypropylene and nylon media provides a bonded matrix thus eliminating fibre migration.

The inherent structural stability of the Tekfil™, prevents 'channelling' and avoids the risk of particle unloading even under impulse conditions.

The Tekfil™ fusion bonded construction ensures cartridge integrity. No surfactants or bonding agents are used, minimising extractables.

Specifications

Materials of manufacture

Filter media Polypropylene/nylon
End fittings Polypropylene

Cartridge dimensions (nominal)

Diameter 63mm (2.5")
Length 254mm (10")
508mm (20")
762mm (30")
1016mm (40")

Gaskets and o-rings

Ethylene Propylene, FEP encapsulated, Silicone, Viton®, Nitrile or Polypropylene felt available for non crush-fit end adapters.

Maximum differential pressure

Normal flow direction at
20°C (68°F) 3.5 bar (51psi)
60°C (140°F) 1.0 bar (15psi)
80°C (176°F) 0.5 bar (7psi)

Operating temperature

Maximum continuous 80°C (176°F)

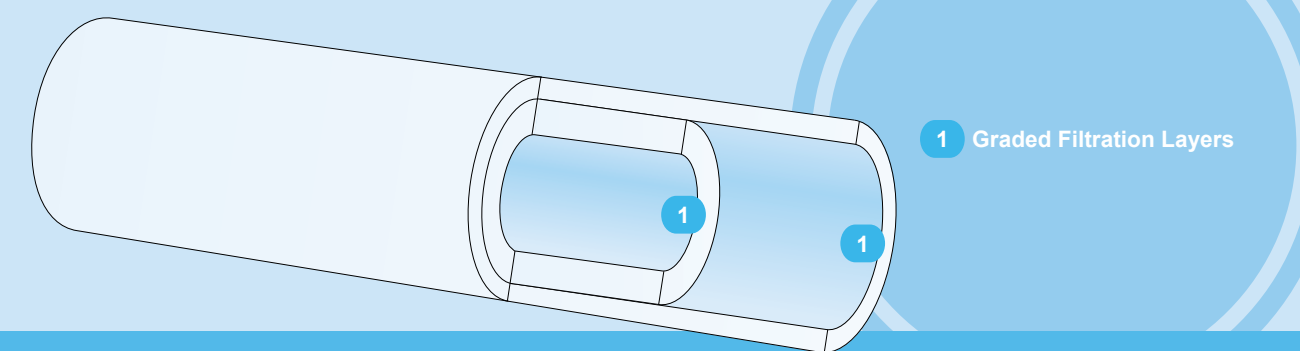
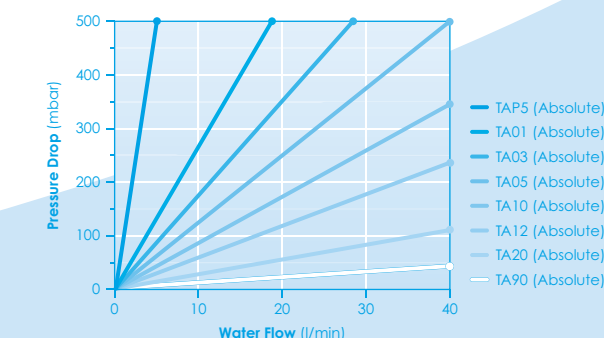
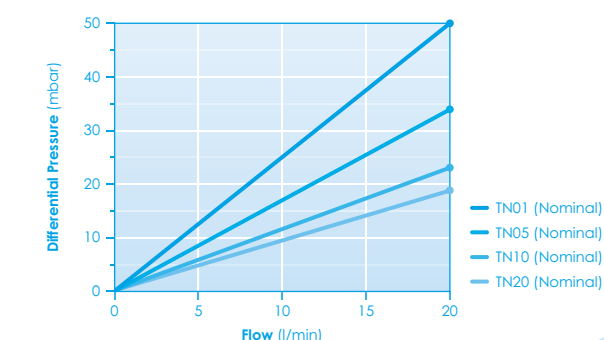
Extractables

Minimum total extractables.

Clean water flow rates

Typical clean water flow rate
A 254mm (10") Tekfil™ single cartridge exhibits the flow-ΔP characteristics indicated below, for solutions with a viscosity of 1 centipoise.

Other solutions
For solutions with a viscosity of greater than 1 centipoise, multiply the indicated differential pressure by the viscosity in centipoise.



Additional Information

Range

Suitable for use in Inprinta filter housings and as direct replacements for existing cartridges, Tekfil™ cartridges can be supplied with end fittings to suit most hardware installations without modification. They are available in lengths of 10, 20, 30 and 40 inches, and in a choice of removal ratings from 1 to 100 micron.

Material conformity and validation

The bio-safety of all materials used in the manufacture of Tekfil™ cartridges is assured by FDA approval to Title 21CFR.177.

Registered to ISO 9001, Inprinta procedures are subject to high standards of quality assurance as demonstrated through its Drug Master File status.

Chemical compatibility

The Tekfil™ materials of construction are compatible with a wide range of chemicals and solvents, however care must be taken to select the appropriate seal material. Advice on chemical compatibility is available. Since operating conditions vary considerably between applications, verification by the end user is recommended.

Filter housings

Please contact an Inprinta representative for further information on our range of filter housings.

Contact us

For further information on our product range or manufacturing services, please contact Inprinta on the details below:

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