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EXPERTS IN FILTRATION

Depth Cartridge

for Viscous Fluids and Critical Filtration

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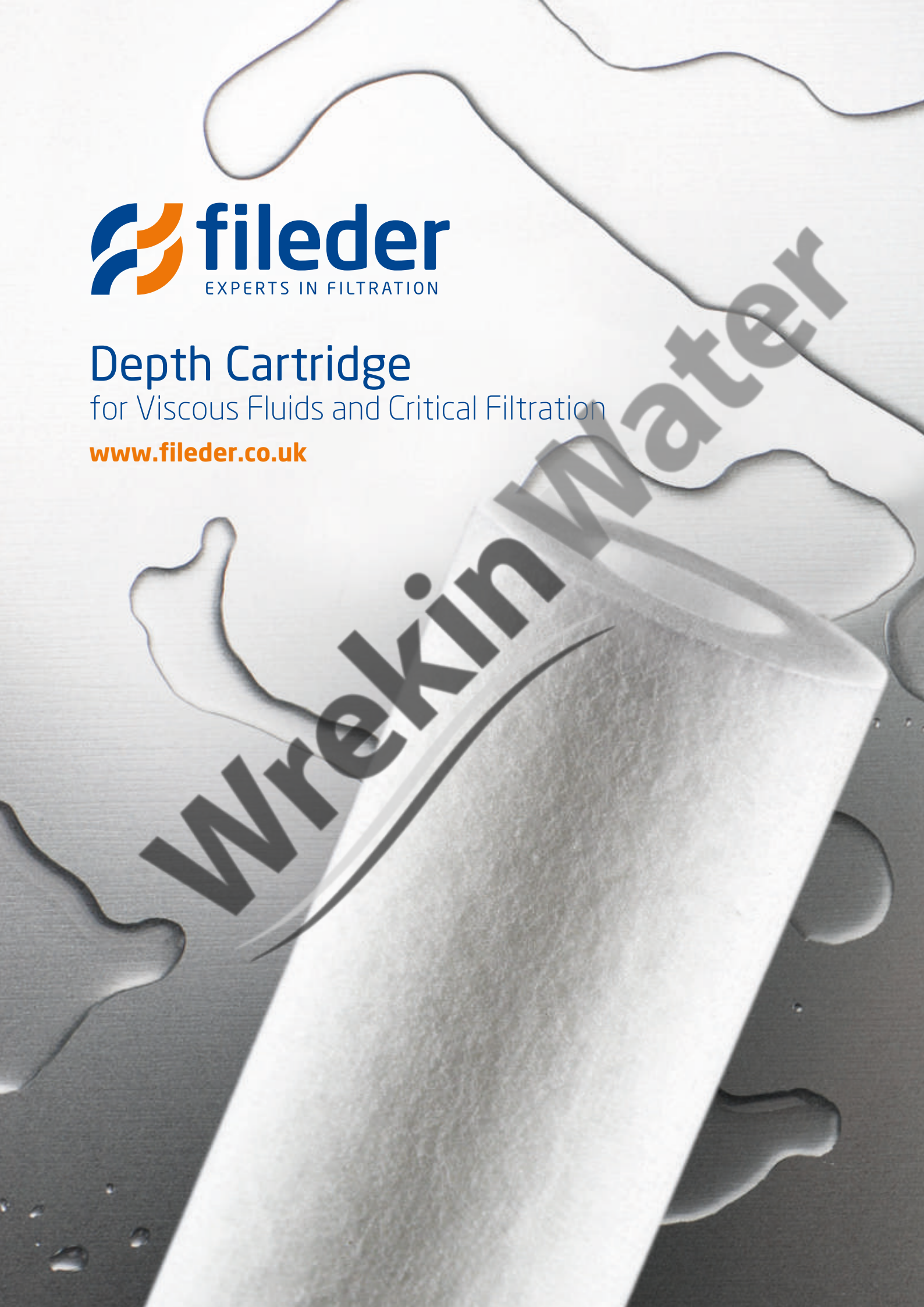


HYDRANAUTICS
Nitto Group Company
AXEON
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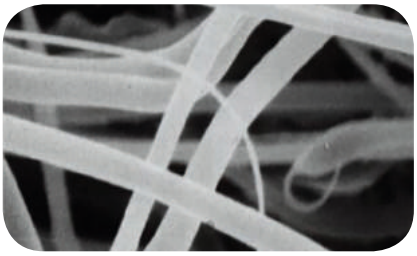
EXPERTS IN FILTRATION

CLEAL® CP2 Filter Cartridge

Fine fibre diameter and a uniform graded porous structure designed to excel in highly viscous as well as challenging compatibility applications.

Old Technology



Unbonded, free moving, inconsistent fibre diameter construction

New Technology

CP2 with nodally fused, bicomponent rigid fibre matrix

Typical Applications

Filtration, essential to many modern products and processes, has become ever more critical as quality expectations and technology requirements for finer and more consistent results develop and increase.

The bicomponent fibre fused matrix used in the CP2 ensures consistent performance throughout filter life without particle unloading, media channelling, fibre release or media compression under differential pressure.

Adhesives & Resins

Paints & Inks

Automotive

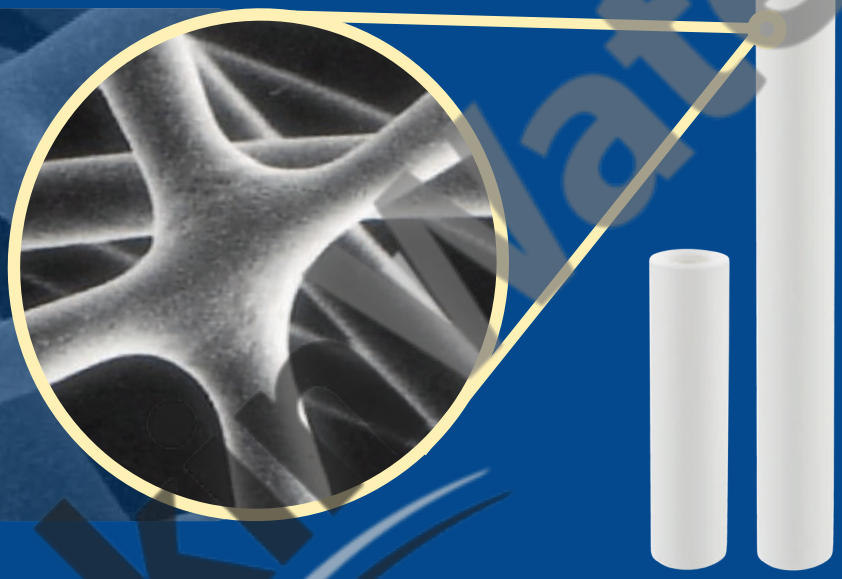
Bicomponent Fibre Technology

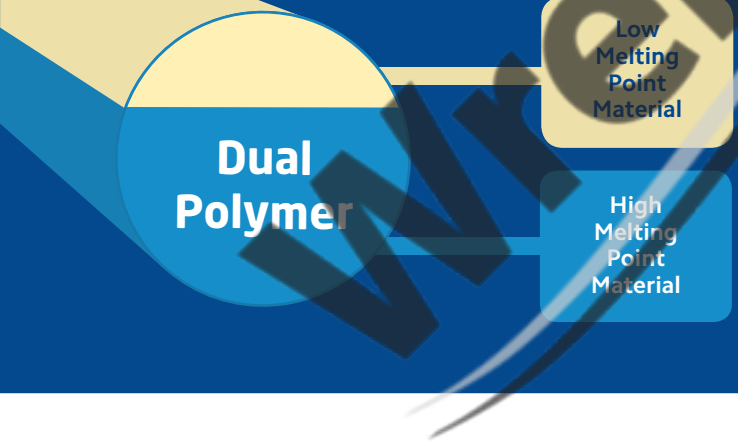
Fibre expertise and rigid technology

CLEAL® CP2 delivers clear benefits due to the bonded nodes, fine fibre diameter and uniform or graded porosity which form a highly porous, rigid structure, capable of removing oversized contaminants, agglomerates and deformable gels whilst allowing non-defect causing particles to pass through without stripping or premature filter blockage.

Rigid Fused Fibre Matrix

The dual extrusion process uses two polymers, which when heated fuses the lower melting point material to create a three-dimensional bond where fibres touch.

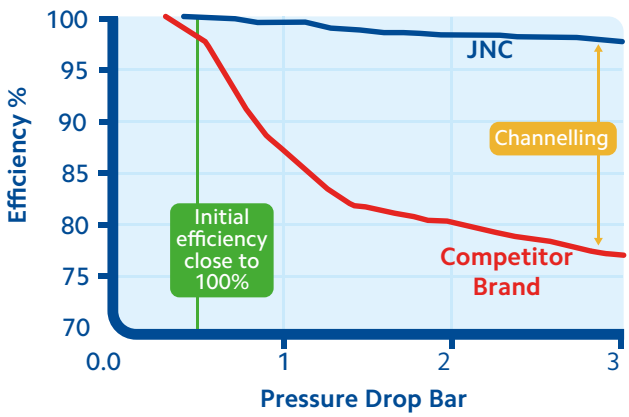




Bonded bicomponent fibre construction creates a strong 3D filter matrix.

The extra fine fibres deliver excellent flow and consistent dirt holding voids, resulting in long service life.

Efficiency vs Increasing ΔP*



*based on manufacturer's internal testing

Typically, as pores become blocked and flow finds alternative paths, pressure drop increases. This increase in ΔP can cause channelling and distortion.

The CP2, with its nodally fused structure, resists high pressures to maintain integrity for consistent filtration preventing the release of previously trapped contaminants, push through of gels and rating creep.

CP2 Filter Cartridge

1-350 micron

Constructed from thermally bonded bicomponent polypropylene fibres, CP2 creates a rigid, dimensionally stable filter matrix with excellent dirt holding capacity and chemical resistance.

Suitable for use in highly viscous and challenging applications, the cartridge removes defect causing particles and gels without stripping small, acceptable or desired particles.

Media

Thermally bonded bicomponent polypropylene fibres

- Rigid structure capable of resisting high differential pressures
- No fibre release, gel push through or micron rating drift
- Consistent performance throughout filter life

Configurations

Micron (µm)

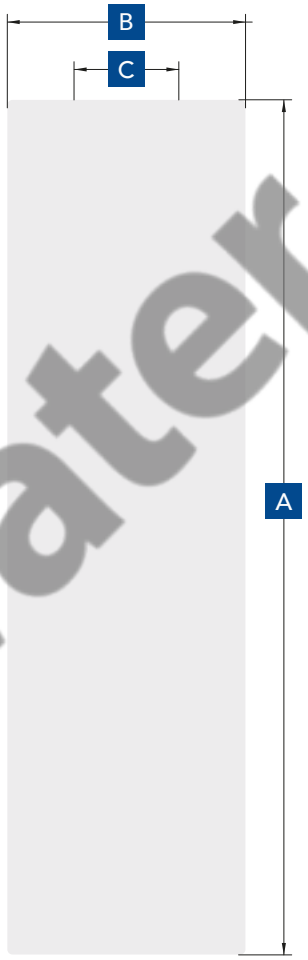
1	3	5	10	25	50	75
100	200	350				

Length (")

9¾	10	19½	20	29¼	30	39
40						

End-cap options available. Contact us for details

Dimensions



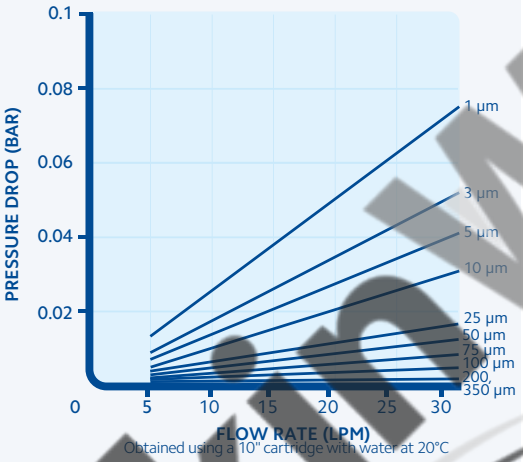
Length (")	A (mm)	B (mm)	C (mm)
9¾	248	62	30
10	254	62	30
19½	496	62	30
20	508	62	30
29¼	743	62	30
30	762	62	30
39	991	62	30
40	1016	62	30

Specification

Max. Operating Temperature
80°C

Max. Operating Differential Pressure
5.5 bar @ 20°C

Food Compliant (EU) No. 10/2011



Obtained using a 10" cartridge with water at 20°C

Efficiency Comparison Chart*

Grade	Absolute µm 99.9%	Nominal µm	ProBond™ Nominal µm	Micro-Klean Nominal µm
CP2-01	15	1	-	1
CP2-03	25	3	-	3
CP2-05	30	5	2	5
CP2-10	35	10	5	10
CP2-25	45	25	10	25
CP2-50	70	50	25	50
CP2-75	90	75	50	-
CP2-100	125	100	-	75
CP2-200	170	200	75	100
CP2-350	200	350	125	125

* Specifications are for general guidance only and application parameters must be checked for suitability.

Part Number

Code	Micron	Diameter		Length
		Inner (mm)	Outer (mm)	mm (")
CP2 -	01, 03, 05, 10, 25, 50, 75, 100, 200, 350 -	30 *	62 *	248 (9¾) 254 (10) 496 (19½) 508 (20) 743 (29¼) 762 (30) 991 (39) 1016 (40)

e.g. CP2-25-30*62*248

Packaging

Box		
Length (")	Quantity	Weight (kg)
9¾ / 10	50	8
19½ / 20	25	8
29¼ / 30	25	12
39 / 40	25	16

Chemical Compatibility

In practice, filter chemical compatibility is influenced by formulation as well as user conditions. It is best to run a filter compatibility in application before use.

C Compatible

LC Limited Compatibility

NC Not Compatible

RF Refer to Manufacturer

	@ 20 °C	@ 60 °C
Acetic acid (conc.)	C	C
Acetone	C	LC
Acetonitrile	C	LC
Ammonium hydroxide 8N	C	C
Aniline	C	LC
Aqueous ammonia 15.5N	C	C
Benzene	LC	NC
Benzoic acid	C	LC
Benzyl alcohol	C	LC
Boric acid (saturated)	C	C
Butyl acetate	LC	NC
Butyl alcohol	C	C
Carbon tetrachloride	NC	NC
Carbonic acid	C	RF
Cellosolve acetate	C	C
Chloroform	LC	NC
Chromic acid (10%)	C	LC
Copper sulphate	C	LC
Critic acid (10%)	C	C
Cyclohexane	LC	NC
Cyclohexanone	LC	NC
Deionised water	C	C
Dichlorobenzene	LC	LC
Dimethyl formamide	C	LC
Dioxane	LC	NC
Distilled spirits	C	C
Ethanol	C	C
Ethyl acetate	LC	NC
Ethylene glycol	C	C
Ethylene oxide	LC	LC
Formaldehyde (37%)	C	C
Formic acid (conc.)	C	RF
Glycerol	C	C
Heptane	LC	NC
Hexane	LC	NC
Hydrochloric acid (conc.)	C	C
Hydrofluoric acid (40%)	C	LC
Hydrogen peroxide (30%)	C	RF
Iron Chloride	C	C
Kerosene (lamp oil)	C	LC
Methanol	C	C
Methyl acetate	LC	NC
Methyl ethyl ketone	C	LC
Methyl iso-butyl ketone	C	LC
Naphtha	LC	NC
Nitric acid (conc.) 15.8N	RF	NC
Nitric acid 2N	C	LC
Ozone 3mg/l	C	RF
Paraffin	C	C

	@ 20 °C	@ 60 °C
Phenol	LC	LC
Phosphoric acid (70%)	C	LC
Potassium dichromate	C	LC
Potassium hydroxide 3M	C	C
Potassium permanganate	C	LC
Propan-2-ol, 60:40 H20	C	C
Pyridine	C	LC
Sodium carbonate 0.5N	C	C
Sodium chloride	C	C
Sodium bicarbonate 0.1M	C	C
Sodium hydroxide 7N	C	C
Sodium hypochlorite	C	LC
Sulphuric acid (conc.) 35N	RF	RF
Sulphuric acid 20%	C	C
Tetrahydrofuran	LC	RF
Toluene	LC	NC
Trichloroacetic acid 5N	C	LC
Trichloroethylene	LC	NC
Turpentine	C	LC
Xylene	LC	NC

Viscosity

One of the biggest factors affecting the configuration of filtration equipment is the viscosity of the filtrate, i.e. the higher the viscosity, the slower the flow and the larger the system requirement. For filtrate other than water, divide the flow rate by the factors shown.

Viscosity CPS	Conversion Factor
1	1
100	.85
200	.58
400	.35
600	.25
800	.17
1,000	.16
1,500	.11
2,000	.08
4,000	.05
6,000	.035
8,000	.026
10,000	.021

Product Brochures

Application Brochures

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