

Sorption Filter Cartridges (Activated Carbon Filters)



Description

Technofilter produces a very wide range of sorption filter cartridges for various applications. Sorption filter cartridges are designed for sorption micropurification of liquid and gas media compatible with cartridge material. Filtration process takes place in the depth of the filter material by the means of adsorption mechanisms combined with mechanical retention.

Features and advantages

Features

Cartridge filter cartridges with a wider range of sorption filter medias

Compact, strong, closed module systems, ready-to-use

Reliability

Advantages

- Solution for unusual filtration tasks;
- Possibility to control organoleptic product properties;
- High sorption Flow rate ensures long lifetime at minimal costs.

- Cost saving and efficient;
- Easy to use and hygienic operation;
- Minimal losses of the filtered matter;
- It is possible to use them as a replacement for bulk filters.

- Produced in compliance with the Quality Management System (9000 series ISO).



General applications



EPSF(ANM) sorption Filter Cartridges

- Sorption purification of potable water from active chlorine, organic compounds in various industry fields;
- Removal of taste, smell and other contaminations in water treatment systems, deionized water, alcohol and vodka alcohol mixes, aggressive non-organic liquids of acidic and alkaline nature with the simultaneous purification from microparticles with the size of 5 μm and more.

EPSF.UAg0.4 sorption Filter Cartridges

- In alcoholic liquor and distillation industry:
 - treatment of water-alcohol mixtures for vodka production (the method of "Silver Filtration"[®]);
 - additional treatment of vodka, ethanol in order to enhance organoleptic properties.

EPSF.UPt sorption Filter Cartridges

- In alcoholic liquor and distillation industry – for treatment of vodka in order to enhance organoleptic properties (the method of "Platinum Filtration"[®]).

EPSF.UAg0.05 sorption Filter Cartridges

- In beverages industry – for sorption purification of potable waters, water for formulations, etc., in order to enhance organoleptic properties;
- For discoloration of carbon containing solutions, pharmaceutical liquids in biopharmaceuticals industry.

EPSF.U sorption Filter Cartridges

- Removal of bitterness from alcohol and alcohol-vodka mixes with simultaneous purification from the microparticles with the size above 5 μm ;
- Removal of carbon dioxide and gaseous impurities from compressed air (smells, hydrocarbons, compressor oil vapors).

EPSF.T sorption Filter Cartridges

- Reduction of the concentration of the excess amount of metals (Ca, K, Fe, Cu, etc.) in order to stabilisation against clouding and enhancement of bottling stability of cognac beverages and wine;
- Purification of water from iron, manganese, ammonia, amines, heavy and toxic metals, active chlorine, hydrogen sulphide, radionuclides and other impurities, stabilization of pH and enhancement of organoleptic indexes.

EPSF.T sorption Filter Cartridges

- In the processes of treatment of potable and technical water for preparation of recipes in beverage industry;
- In the processes of filtration and adsorption purification of waters from organic and non-organic impurities.

Main materials and structure

Brand	Filter medium	Filter material packing type	Material of inner and outer bodies, end parts
EPSF(ANM)	woven activated carbon fabric	wound	polypropylene
EPSF.UAg0.4	silver impregnated Special absorbent coconut activated carbon	bulk	polypropylene
EPSF.UAg0.05	silver impregnated granulated coconut activated carbon	bulk	polypropylene
EPSF.UPt	platinum impregnated Special granulated absorbent coconut activated carbon	bulk	polypropylene
EPSF.U	Special absorbent activated carbons	bulk	polypropylene
EPSF.T	Special cation exchange resins	bulk	polypropylene
EPSF.SH	natural mineral schungite sorbent	bulk	polypropylene

Technical and operational characteristics (for elements with the height of 250 mm)

Characteristics	EPSF(ANM)	EPSF.UAg0.4	EPSF.UAg0.5	EPSF.T	EPSF.SH	EPSF.UPt
Water (tap water) flow rate(GOST 2874-82) at 20±5 °C, P = 0.05 MPA, l/h	30-35	-	45-50	-	100-150	-
Treatment rate, dal/h						
• Water-alcohol mixture	-	3-6	-	-	-	-
• Vodka	-	7-12	-	-	-	25-30
• Alcohol	-	25-30	-	-	-	-
• Cognacs, wines	-	-	-	20-40	-	-
Purification efficiency, %						
• from organic compounds	95					
• from active chlorine	95					
Chlorine absorption Flow rate, g	50-55	-	-	-	-	-
Nominal filtration rating, µm	5	5	5	-	-	5
Lifetime for water, dal	15000	-	15000	-	15000	-
Lifetime for water-alcohol mixture, dal,	-	3,5	-	-	-	-
Lifetime for vodka, dal	-	8	-	-	-	10
Maximal differential pressure,MPa (20 °C)	0,5	0,5	0,5	0,5	0,5	0,5

Ordering information

EPSF.UAg0.4	A	750
Brand	Adapter code	Nominal length
EPSF(ANM)	A	250 mm (10")
EPSF.UAg0.05	A1	500 mm (20")
EPSF.UPt	A4	750 mm (30")
EPSF.U	D	1000 mm (40")
EPSFT	D1	
EPSF.SH	B	
	B(SL)	

EPSF Nominal Dimensions

Cartridge height, mm	250, 500, 750, 1000
Inner diameter, mm	26 or 36
Outer diameter, mm	70
Adapter types	A, A1, A4, D, D1, B, B(SI)

Please, contact Technofilter's specialists for more information about technical and operational parameters, preparation, processing and storage methods of sorption Filter Cartridges.