

# FiberFlo® MicroFiber Cartridge Filters

- ✓ Increased Dirt Holding Capacity
- ✓ Low Initial Pressure Drops
- ✓ Maximum Throughput
- ✓ Long Service Life
- ✓ Comprehensive Selection of Pore Sizes

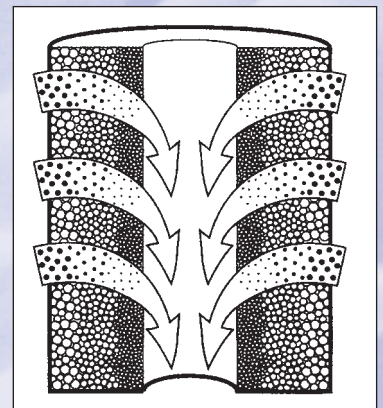
## Unique Manufacturing Process Gives Superior Structure

Using a numerically controlled process, molten polypropylene is extruded into highly porous cartridges. The microfibers weld together as they cool. The result is a dimensionally stable filter media that resists distortion during increased fluid pressure.

## True Gradient Pore Size Distribution

FiberFlo MicroFiber cartridges contain void spaces that are far more accessible to dirt particles than those filters using graded density construction. The proprietary melt blown process develops a filter with enormous quantities of progressively smaller pores without significantly increasing bulk density. Porosity remains uniform, from coarse to fine, throughout the cartridge wall providing maximum throughput and extended service life.

In contrast, graded density is a relatively unsophisticated method that compresses more fiber into a fixed volume to achieve smaller voids and pores. This can cause a dramatic reduction in percentage of void volume resulting in excessive pressure drop and shortened service life.



The true gradient density of these filters results in particle entrapment throughout the depth of the media, reducing surface blinding and providing increased filter life and dirt holding capacity.

## Free From Extractables

FiberFlo MicroFiber filter surfaces are free from lubricants, surfactants or antisatic chemicals so they will not cause foaming or other contamination. Polypropylene microfiber is suitable for potable water filtration and food processing applications. The polypropylene cartridges are suitable for filtering a variety of industrial chemicals.

## Homogenous Materials for Easier Disposal

The MicroFiber filter media is composed of a single material for easier pulverization or incineration. This efficiency in waste volume reduction can lead to a direct cost savings in disposal. In addition, polypropylene provides 2,000 BTU/ LB of heat energy for any process that uses it as a fuel.

Every cartridge is individually embossed with its micron rating.

Micron ratings represent the smallest size particle that can be trapped at an efficiency of 98% or better in a single pass with end cap seals.



## Features

Greater void volume than resin bonded or wound cartridge.

Homogeneous high purity media. Fibers free of residual extrusion oils, surfactants, antistatic agents and resin binders.

Fibers thermally bonded - dimensionally stable filter media.

Stratified pore structure allows separation of solids along a size gradient.

Hydrophobic media.

High efficiency media.

Easily ground into powder or incinerated.

## Benefits

Increased dirt-holding capacity. Longer service life. Lower initial pressure drop.

Meets FDA requirements for food contact. Will not cause foaming in process stream.

Reduced fiber migration. Micron rating not altered as differential pressure increases. Rigid, highly porous cartridge does not require a support core.

Results in particle entrapment throughout depth of media reducing surface blinding and increasing dirt holding capacity.

Filter will absorb undissolved and non-emulsified oil out of liquid, air or gas streams.

Will filter out large percentage of contaminant on a single pass. Not dependent on the filter "cake" to improve particle retention.

Reduced waste volume.

## Micron Ratings

1	50
3	75
5	100
10	150
25	

## Lengths (in inches)

9 3/4, 10, 19 3/4, 20  
29 1/4, 30, 39, 40

## O-Ring or Flat Gaskets

Silicone    Viton    Buna-N  
ERR        Neoprene

## End Fitting/Sealing Options

SOE-222 O-Ring/Solid End Cap (Code 3)  
SOE-222 O-Ring/Fin (Code 8)  
SOE-226 O-Ring/Fin (Code 7)  
DOE-Flat Gasket/Flat Gasket (Code DOE)  
DOE -Standard (X Model) (No end caps)

## Differential Pressure

Maximum            50 PSIG  
Recommended  
Change-Out        10-15 PSIG  
Initial                1-3 PSIG

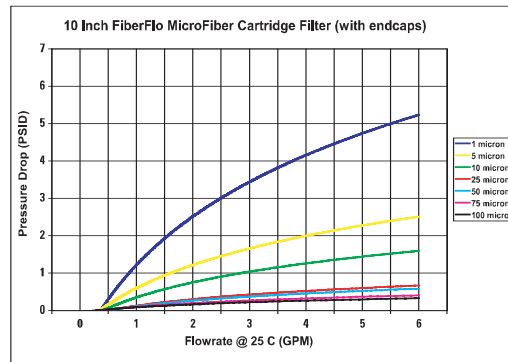
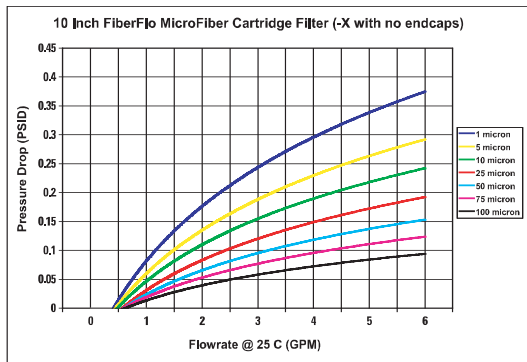
## Operating Temperature

Maximum Continuous    200°F

# MicroFiber Cartridge Filters

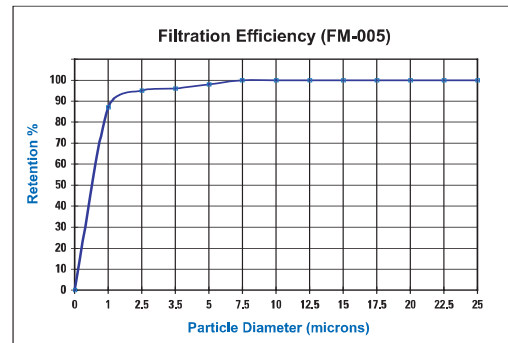
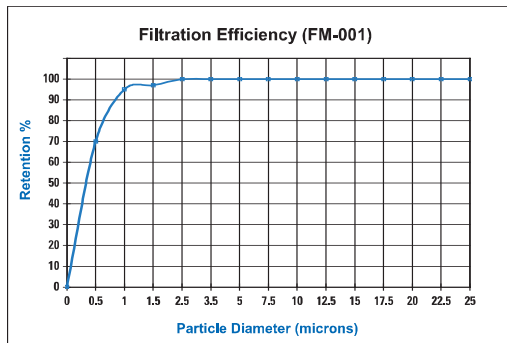
# Performance Attributes

## Flow Rates



Cartridges are challenged at 3 to 5 GPM/10" on a single pass with a water based slurry of either SAE-Fine or SAE-Coarse test dust depending on the micron rating. The efficiencies are derived by measuring the ratio of upstream versus downstream particle counts taken on an automated particle counter.

## Filtration Efficiency (examples)



Other efficiency charts available upon request.

## Compliance of Polypropylene MicroFiber Cartridges

### FDA

Minntech Corporation, Filtration Technologies Group, polypropylene microfiber media, using a base homopolymer resin, is in compliance with the appropriate guidelines outlined by the U.S. Food and Drug Administration. Construction components meet the FDA requirement outlined in the Code of Federal Regulations, Title 21, Section 177.1520 (a), (1) and Section 177.1520 (c), (1.1).

Guidance in the proper use of polymers is set forth by appropriate government regulation and must be determined by the end user. End users are encouraged to consult the Code of Federal Regulation in determining acceptable use for polypropylene homopolymers (Ref...Title 21, Section 176.170).

### NSF

FiberFlo MicroFiber Cartridges with and without end caps, are certified by NSF International under ANSI/NSF Standard 42 for replacement parts.

### USP

FiberFlo MicroFiber Cartridges meet the requirement of the USP Class VI plastics test as demonstrated by USP Biological Reactivity Tests, In Vivo.

# Chemical Compatibility

MicroFiber Cartridges are suitable for these chemicals (based on temperature of 70°F)

Acetamide	Chocolate Syrup	Latex Lead Acetate	Potassium Dichromate
Acetic Acid, Glacial	Chromic Acid 5%	Lead Sulfamate	Potassium Hydroxide
Acetophenone	Chrome Plating Solutions	Lime Bleach	Potassium Nitrate
Acrylonitrile	Citric Acid	Lime Sulfar	Potassium Permanganate
Adipic Acid	Citric Oils	Linoleic Acid	Potassium Sulfate
Alcohols	Colbalt	Lubricants	Propane (Liquified)
Aluminum Chloride 20%	Chloride (2N)	Lubricating Oils	Propylene Glycol
Aluminum Fluoride	Copper Nitrate	(Petroleum)	Rosins
Aluminum Hydroxide	Copper Sulfate	Lye	Rum
Aluminum Nitrate	(5% Solution)	Magnesium Carbonate	Rust Inhibitors
Aluminum Potassium Sulfate (Alum)	Cream	Magnesium Chloride	Salad Dressing
Ammonia Anhydrous	Cychlohesanol	Magnesium Hydroxide	Salt Water
Ammonia, Gas (cold)	Decalin (Deklin)	Magnesium Nitrate	Sea Water
Ammonia Liquids	Decane	Magnesium Sulfate	Sewage
Ammonia Nitrate	Denatured Alcohol	Maleic Acid	Shellac (Bleached)
Ammonium Bifloride	Detergents	Malic Acid	Shellac (Orange)
Ammonium Chloride	O-Dichlorobenzene	Mayonaise	Silicone
Ammonium Hydroxide	Diesel Fuel	Mercuric Chloride	Silver Nitrate
Ammonium Nitrate	Diethyl Sebecate	(dilute solution)	Soap Solutions
Ammonium Nitrite	Dimethyl Aniline	Mercuric Cyanide	Sodium Acetate
Ammonium Persulfate	Dimethyl Formamide	Mercury	Sodium Aluminate
Ammonium Phosphate, Monobasic	Dimethyl Phthalate	Methane	Sodium Bicarbonate
Ammonium Phosphate, Tribasic	Epiclorohydrine	Methanol	Sodium Bisulfate
Ammonium Sulfate	Epsom Salts	(See Alcohol Methyl)	Sodium Borate
Amyl-Alcohol	(Magnesium Sulfate)	Methyl Cellosolve	Sodium Carbonate
Aniline	Ethyl Acetate	Methyl Isobutyl Ketone	Sodium Chlorate
Anti-Freeze	Ethylene Diamine	Methacrylate	Sodium Chloride
Aqua Regia (80%, HCl, 20%, HNO)	Ethylene Glycol	Methyl Salicylate	Sodium Chromate
Arsenic Acid	Fatty Acids	Milk Molasses	Sodium Cyanide
Asphalt	Ferric Chloride	Mustard	Sodium Hydroxide
Barium Carbonate	Ferrous Sulfate	Napthalene	Sodium Hypochlorite
Barium Chloride	Fluoboric	Natural Gas Nickel Chloride	(To 20%)
Barium Cyanide	Fluosilicic Acid	Nickel Sulfate	Sodium Nitrate
Barium Hydroxide	Formaldehyde	Nitric Acid (5-10% Solution)	Sodium Perborate
Barium Nitrate	Formic Acid	Nitric Acid (20% Solution)	Sodium Peroxide
Barium Sulfate	Fruit Juice	Nitric Acid (50% Solution)	Sodium Phosphate
Beer	Galic Acid	Nitobenzene	Sodium Polyphosphate (Mono, Di, Tribasic)
Beet Sugar Liquids	Gelatine	Nitrogen (Gas)	Sodium Silicate
Benzoic Acid	Glucose	Oils-Aniline	Sodium Sulfide
Boric Acid	Glue P.V.A.	Oleic Acid	Sodium Thiosulfate ("Hypo")
Bleach Solutions	Glycerine	Oxalic Acid (Cold)	Stannic Chloride
Borax (Sodium Borate)	Glycolic Acid	Palmitic Acid	Steric Acid
Brine	Glycols	Paraffin	Stoddard Solvent
Butyric Acid, Aqueous	Grape Juice	Perchloric Acid	Sugar (Liquids)
Calcium Disulfide	Green Sulfate Liquor	Petrolatum	Sulfate Liquors
Calcium Carbonate	Honey	Petroleum-Below 250 Phenol	Sulfar
Calcium Chloride	Hydrazine	(Carbolic Acid)	Sulfar Dioxide
Calcium Hydroxide	Hydrobromic Acid	Phosphoric Acid (20%)	Sulfurous Acid
Calcium Hypochlorite	Hydrochloric Acid (20%)	Phosphoric Acid (37%) (Cold)	Syrup
Calcium Nitrate	Hydrocyanic Acid	(to 40% Solution)	Tallow
Calcium Sulfate	Hydrofluoric Acid (20%)	Phosphoric Acid (45%)	Tannio Acid
Calcium Sulfide	Hydrofluoric Acid (50%)	Phosphoric Acid (40%- 100% Solution)	Tanning Liquors
Calgon	Hydrofluosilicic Acid (20%)	Photographic Developer	Tartaric Acid
Cane Sugar Liquors	Hydrogen Gas	Picric Acid	Teriary Butyl Alcohol
Carbifol	Hydrogen Peroxide	Plating Solutions:	Tetraefhyl Lead
Carbolic Acid (See Phenol)	Hydrogen Sulfide (Wet) (Cold)	Polyvinyl Acetate Emulsion	Tomato Juice
Carbon Dioxide	Hydrogen Sulfide (Wet) (Hot)	Potash	Transformer Oil
Carbon Monoxide	Hydrogen Sulfide Aqueous Solution	Potassium Acetate	Vinegar
Carbonate Water	Hydroquinone	Potassium Bicarbonate	Varnish
Carbonic Acid	Hypochlorous Acid	Potassium Bromide	Water, Acid, Mine
Catsup	Iodine (In Alcohol)	Potassium Carbonate	Water, Distilled, Lab Grade 7
Cellosolve	Isooctane	Potassium Chlorate	Water, Fresh
Chloros Bleach	Lard	Potassium Chloride	Water, Salt
		Potassium Chromate	Whiskey and Wines
		Potassium Cyanide Solutions	White Liquor (pulp Mill)
			Zinc Chloride
			Zinc Sulfate

## Temperature Limits for Elastometers

Neoprene	0°F to +200°F
Buna-N	+10°F to +180°F
EPR, EPDM	-60°F to +280°F
Viton	-40°F to +350°F
Teflon	+500°F
Silicone	+500°F
Hypalon	+10°F to +275°F

NOTE: These are average temperatures. Chemicals and solvents can have an effect on temperature limits.



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