

Filter Bag



Membrane Solutions provides filter bags, liquid filter bag, dust collector bags, dust bags, filter socks, bags, tubes, socks - they all mean the same thing: An industrial grade fabric filter made from heavy duty material, all textile based, used in liquid filtration, dust collecting systems, in either process filtration or pollution control.

Liquid Filter Bag

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Needled Felt Filter Bag

MS® Needled Felt bags are designed to withstand higher solid loading, and are suitable for applications using vessel or open filtration systems. Our integrated technology and superior control over our manufacturing and quality leads to consistent performance. With MS® filter bags, you can count on what you are getting. We start with the finest material possible.

Membrane Solutions, LLC produces the felt material used in our felt filter bags in-house, guaranteeing the highest quality. Our no-bypass welded seams eliminate the possibility of fluid bypass through needle holes. We provide a variety of glazed and singed finishes to inhibit fiber migration.



Feature

- Needled felt structure
- Stainless steel or self-sealing plastic collar
- Oil free material
- Suitable to lower viscosity fluid
- Stable filtration with high flow velocity
- Total melt blown structure
- without needle hole & by pass
- No chemical or fiber release

Application

- Pre-filtration in Water treatment
- Amine filtration in Petroleum industry
- Electrophoretic paint filtration in Automotive industry
- Syrup filtration
- Raw medicine filtration
- Recycled water filtration in electronics industry

Specification

Material	Temperature	Chemical Resistance	Filtration Accuracy(um)	Structure	Filtration Style	Size
PP	< 80 °C	Water, Salt, Strong acid, Alkali	1,5,10,25,50,80,100,150,200	Needled Felt	Depth Filtration	1,2,3,4
Extended life PP	< 80 °C	Water, Salt, Strong acid, Alkali	1,5,10,25,50,80,100,150,200	Needled Felt	Depth Filtration	1,2,3,4
PE	< 170 °C	Water, Aromatics, Weak acid, Alkali	1,5,10,25,50,80,100,150,200	Needled Felt	Depth Filtration	1,2,3,4
Extended life PE	< 170 °C	Water, Aromatics, Weak acid, Alkali	1,5,10,25,50,80,100,150,200	Needled Felt	Depth Filtration	1,2,3,4
PARA	< 220 °C	Water, Aromatics, Aliphatics, Strong acid	1,5,10,25,50,80,100	Needled Felt	Depth Filtration	1,2,3,4
PTFE	< 240 °C	Almost all	1,5,10	Needled Felt	Depth Filtration	1,2,3,4

Ordering Information

Example:

PP N 50 E 1 E E

Material

PP = Polypropylene
 EPP = Extended life PP
 PE = Polyester
 EPE = Extended life PE
 PAR = polyarylamide
 TFE = Teflon

N = Non-inserted felt
 I = Inserted felt

Micron Rating

PO = 1,5,10,25,50,80,100,150,200
 PE = 1,5,10,25,50,80,100,150,200

Cover

E = Polyester multifilament
 N = Nylon monofilament
 M = Nylon multifilament
 P = Plain (no cover)

Size

1: 7" x 16" (17.78 cm x 40.64 cm)
 2: 7" x 32" (17.78 cm x 81.28 cm)
 3: 4" x 8.25" (10.16 cm x 20.96 cm)
 4: 4" x 14" (10.16 cm x 35.56 cm)
 5*: 6 7/8" x 34" (17.46 cm x 86.36 cm)
 6*: 6 7/8" x 16 1/2" (17.46 cm x 41.91 cm)

Ring

E = Polyester Polyloc
 N = Nylon Polyloc
 P = Polyloc
 S = 304 Stainless steel snap fit
 X = 316 Stainless steel snap fit

Suffix

E = Welded seam construction
 A = Auto construction
 C = Cotton handle
 W = DI Washed
 L = Loops
 N = Nylon handle
 R = Reverse collar

Melt Blown Filter Bag

MS® Melt Blown Filter Bag provides outstanding performance on contaminant applications where the minimalization of particle travel is important. The Melt Blown Filter Bag contains three layers: a pre-filtering layer that removes coarse debris; the primary layer, composed of micro pores (for efficient particle retention); and an outer cover that prevents fiber migration. The finish-free fibers are non-foaming, which is ideal for food, beverage, water, chemical and coatings applications. Our long life time Melt Blown Filter Bag has very large dirt holding capability.



Feature

- Made of super pure PP melt blown fiber
- Absolute filtration efficiency
- Super filtration area
- Especially suitable for removal of oil, gel and so on
- Multilayer structure and complete filtration
- Good dirt holding capacity of impurity
- Good chemical resistance

Application

- Syrup filtration
- Boiler condensed water
- Electrophoretic paint filtration in Automotive industry
- Decolorant filtration in Chemical and Pharmaceutical industry
- Fruit juice filtration

Specification

Material	Temperature	Chemical Resistance	Filtration Accuracy(um)	Structure	Filtration Style	Size
PP	<80 ℃	Water, Salt, Alkalis, Concentrated acid	1,5,10,25,50	Melt Blown	Depth filtration; Absorption filtration	01,02,03,04

Monofilament Mesh Filter Bag

MS® Monofilament Mesh Filter Bag (NMO) is constructed using a woven fabric. Each thread is a single filament, providing excellent strength with no fiber migration. The fabric is designed with evenly spaced holes. The monofilament yarn used in the fabric is extremely abrasion resistant, resistant to a broad range of chemicals, unaffected by metal fatigue or corrosion, has no loose fibers and boasts high tensile strength.



Feature

- Monofilament mesh structure
- Fixed aperture
- Good stretch-proof performance
- Stainless steel or self-sealing plastic collar
- Strengthened outer lining hem
- Suitable to intercept rigid impurity and high viscosity fluid
- Easy to clean

Application

- Raw water filtration in Water treatment industry
- Prefiltration in Metallurgy industry
- Degreasing in automotive industry
- Coolant filtration in Paint industry
- Recycled water filtration in paper mill
- Cutting fluid filtration in machine industry
- Coarse filtration in chemical industry

Specification

Material	Temperature	Chemical Resistance	Filtration Accuracy(um)	Structure	Filtration Style	Size
Nylon	<170 °C	Water, Aromatics,Aliphatics, Alkali	25,50,80,100,125,150,175,200, 250,300,400,600,800,1000,1250	Monofilament mesh	Surface filtration	01,02,03,04

Acrylic homopolymer needle-punched filter felt

MS Acrylic homopolymer needle-punched filter felt are available in woven or felt, this product provides chemical resistance similar to polypropylene while allowing operation up to 250 F (121 C).



Feature

- excellent combination of filtration efficiency and dust cake release
- good chemical resistance to acids and alkalis

Application

- Chemicals processing: dryers in the pigment, plastic, and catalyst industries
- Minerals processing: dryers and finish mills in the cement industry
- Metals processing: process collectors in the lead, primary base metal, and foundry industries

Specification

Fiber Composition		Acrylic homopolymer
Base Fabric Composition		Acrylic homopolymer
Weight (g/m ²)		500
Thickness (mm)		2.0
Tensile Strength (N / 5cm)	Warp	800
	Weft	1100
Tensile Elongation (%)	Warp	30
	Weft	40
Air Permeability (m ³ /m ² /min)		15
260°C Warp Dry Heat Shrink Rate (%)		< 1
260°C Weft Dry Heat Shrink Rate (%)		< 1
Working Temperature (°C)		125
Short Working Temperature (°C)		140
Anti-acid		Common
Anti-alkali [Ⓜ]		Common
The Stability of Water Solution [Ⓜ]		Excellent
Surface Treatment [Ⓜ]		Singeing、 calendaring、 heat setting

Antistatic Needle-Punched Filter Cloth

MS Antistatic needle-punched filter cloth easily resulted in the explosion and conflagration after the consistency of common industrial powder and dust reaches the certain degree (explosion limit) if touching the static electricity light and spark outside, such as flour powder, chemical dust, coal powder etc. In the field of the dedusting filter bag, if we use the bag to collect dust, then the filter medium for bags must be anti-static.



Feature

- Antistatic function
- High Air Permeability
- Easy clear and long useful life

Application

- Coal industry
- Carbon black industry
- Power plants
- Cement industry
- Chemical industry
- Smelting industry
- Asphalt industry

Specification

Fiber Composition	Polyester
Weight (g/m ²)	500
Thickness (mm)	1.8
Density (g/m ³)	0.24
Air Permeability (l/m ² /s)	16
Warp Strength (N/5×20cm)	> 600
Weft Strength (N/5×20cm)	> 1000
Working Temperature (°C)	130
Surface resistance	4.8×10 ⁹ Ω
Volume resistance	8.7×10 ⁸ Ω
Attrition electric potential(Max.)	250V
Attrition electric potential (Average)	183V
Surface Treatment	Water and oil resistant treatment

Nomex Filter Felt

The characteristics of MS nomex filter needle felt: High temperature (204~ 240 degree), anti -acid, anti-alkali, high filtration precision, blow speed, low pressure drop, anti -break, anti -abrasion, mostly applied in pitch mix gas, blast furnace gas in steel factory, tail gas of white char, kiln applications, electric cooker high temperature gas.

Feature

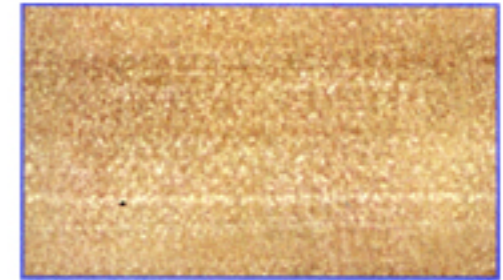
- Excellent combination of filtration efficiency and dust cake release
- Good chemical resistance to acids and alkalis
- Heat resistance, working under 200-220?
- Easy cleaning
- High filtration efficiency, reaching 99.9%

Application

- Coal industry
- Carbon black industry
- Power plants
- Cement industry
- Chemical industry
- Smelting industry
- Asphalt industry

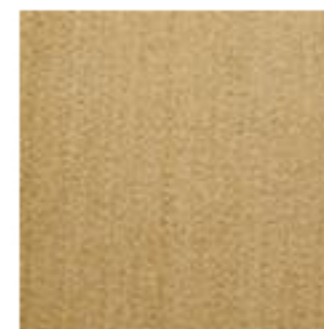
Specification

Fiber Composition	Polyaramide
Weight (g/m ²)	500
Density (g/m ³)	0.29
Air Permeability (L/m ² /S)	10.8
Warp Strength (N/5×20cm)	800
Weft Strength (N/5×20cm)	1000
Warp Tensile Elongation (%)	35
Weft Tensile Elongation (%)	45
Working Temperature (°C)	204
Short Working Temperature (°C)	250
Acid resistance	Good
Alkali resistance	Excellent
Abrade resistance	Excellent
Surface Treatment	Singeing、 calendaring、 heat setting



P84 (Polyimide) Needle-Punched Filter Felt

MS P84 needle punched felt High Temperature resistant Filter material, good chemical resistance, good air permeability, high filtration efficiency, mostly applied in Cement kiln, Asphalt, Waster Incinerator, coal boilers, etc.



Feature

- High heat, resistance
- Low pressure drop
- High acid, resistance
- Good dust cleaning

Application

- Cement industry
- Waster Incinerator
- Asphalt industry
- Coal boilers

Specification

Fiber Composition	P84 2D 100%
Base Fabric Composition	P84
Weight (g/m ²)	550
Thickness (mm)	2.4
Density (g/m ³)	0.24
Air Permeability (m ³ /m ² /min@12.7mmH ₂ O)	10
Warp Strength (N/5×20cm)	800
Weft Strength (N/5×20cm)	1100
Warp Tensile Elongation (%)	35
Weft Tensile Elongation (%)	45
300℃ Warp Dry Heat Shrink Rate (%)	<1
300℃ Weft Dry Heat Shrink Rate (%)	<1
Working Temperature (℃)	240
Short Working Temperature (℃)	280
Surface Treatment	Singeing、 calendaring、 heat setting

Polyester (PET) Needle-Punched Filter Felt

MS Polyester needle-punched filter felt provide a cost effective solution for many industrial operations. They are highly versatile and efficient in dust and fume collection.



Feature

- 70% Porosity
- Easy clear and long useful life
- Smooth surface after Singeing、 calendaring、 heat setting
- High efficiency of removing dust particle

Application

- Cement industry
- Power plants
- Carbon black industry
- Asphalt industry
- Coal industry
- Chemical industry
- Smelting industry

Specification

Composition		PET/PET Ordinary Scrim				PET/PET Strength Scrim				
Weight (g/m ²)		450	500	550	600	400	450	500	550	600
Thickness (mm)		1.6	1.8	2.0	2.2	1.4	1.55	1.75	1.95	2.15
Air Permeability (m ³ /m ² /min)		18	15	13	12	21	18	16	13	12
Tensile Strength (N/5×20cm)	Warp	>750	>750	>800	>800	>1000	>1000	>1100	>1100	>1150
	Weft	>1150	>1200	>1300	>1400	>1350	>1400	>1500	1550	>1550
Tensile Elongation (%)	Warp	<35	<35	<35	<35	<25	<25	<25	<25	<25
	Weft	<55	<55	<55	<55	<45	<45	<45	<45	<45
Broken Strengty (Mpa/min)		400	450	500	550	400	450	500	550	600
Working Temperature (°C)		≤130	≤130	≤130	≤130	≤130	≤130	≤130	≤130	≤130
Short Working Temperature(°C)		150	150	150	150	50	150	150	150	150
Anti-acid		Excellent				Excellent				
Anti-alkali		Middling				Middling				
Anti-abrasion		Excellent				Excellent				
The Stability of Water Solution		Middling				Middling				
Finishing Treatment		Singeing、 calendaring、 heat setting								

Water and Oil Resistant Filter Cloth

After the treatment of water and oil repellent finishing, various filter fabrics can form a layer of molecule barrier around the fiber surface. It can prevent various pollution and infiltration from the water and oil.

Compared with ordinary filter fabrics, it not only has the merit of water and oil resistance, but also it has another merit of anti-caking property to the dust, so it is very easy to peel off. So it can prolong the life of your filter bags, and prolong the period to clean off the dust, so it can save your cost in fixing the device.



Feature

- Water and Oil resistant function
- High Air Permeability
- High acid and alkali resistant
- Easy clean and long useful life

Application

- Cement industry
- Power plants
- Carbon black industry
- Asphalt industry
- Coal industry
- Chemical industry
- Smelting industry

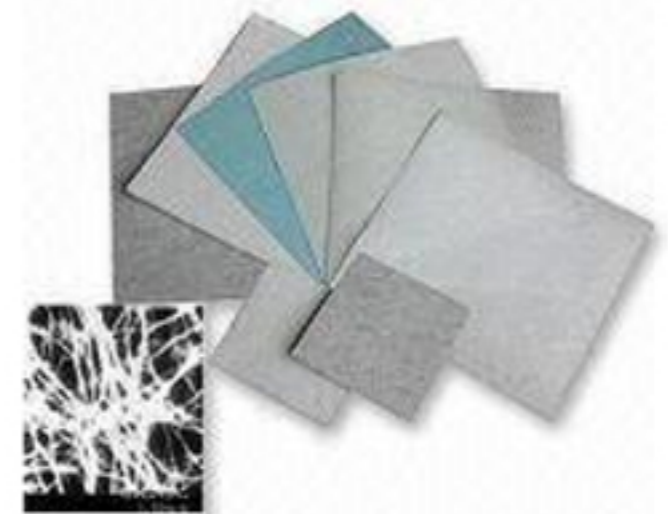
Specification

Fiber Composition	Polyester
Weight (g/m ²)	500
Thickness (mm)	2.0
Density (g/m ³)	0.24
Air Permeability (l/m ² /s)	11.4
Warp Strength (N/5×20cm)	900
Weft Strength (N/5×20cm)	1100
Working Temperature (°C)	130
Surface Treatment	Water and oil resistant treatment

Filter Bag with PTFE Membrane Laminating

Membrane Solutions provide Expanded PTFE Membrane finishes for for all dust collector filter bag applications. The expanded PTFE Membrane permits more air to pass through the filter media while trapping particulate on the surface.

Using the ePTFE Membrane coated filter bag allows baghouse engineers to reduce capital and operational costs, as well as the ability to design the baghouse for higher airflows. Use of the ePTFE membrane coated filter bag also provides for a degree of protection from the "unknown" and "unpredictable" changes that sometimes occur during baghouse operations. The ePTFE membrane is in most instances, the best economic choice for filter media.



Feature

- Material: PTFE membrane laminated on various reliable fabric materials (such as pp, pet, pe non-woven)
- With homogeneous pore size distribution high
- Collection efficiency and air permeability, water- and wind-resistant
- It's a breathable filtration material

Application

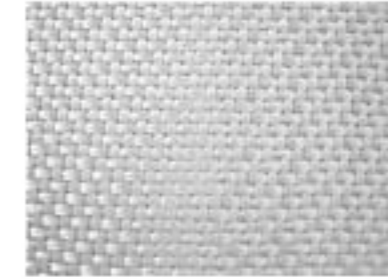
- Steel
- Metallurgy
- Nonferrous metal
- Bitumen
- Firepower Electricity generation
- Cement
- Coke
- Fireproof materials and other coal powered Fields for dust removal.

Specification

Fiber Content	Filter material with PTFE membrane laminating	
Weight	800g/m ² (6.9 oz/yd ²)	
Thickness	1.2mm	
Continuous Operating Temperature	≤260 °C(500°F)	
Maximum Surge Temperature	280 °C(538°F)	
Acid Resistance	Excellent	
Alkali Resistance	Excellent	
Tensile strength(N/5×20cm)	Warp >800	Weft >800
Tensile elongation(%)	Warp <25	Weft <40
Air permeability(m ³ /m ² /min)	2.5 - 4	
Oxidation Resistance	Excellent	
Hydrolytic Resistance	Excellent	
Finishing treatment	Singeing, calendaring, heat setting, PTFE	

Glass Fiber Needle-Punched Filter Felt

MS glass fiber needle punched felt is one kind of high temperature resistant filter material with reasonable structure and excellent performance, it could be high temperature resistant, anti-abrasion, stable size, little elongation shrinkage ratio, high intension, also ultimate fiber of felt layer fiber, three-dimensional micro porestructure, high porosity, small filter resistance to gas, it has higher speed and efficiency. Comparing with other high temperature resistant chemical fiber felt, it has the advantage of lower price, higher temperature resistant. Glass fiber needle punched felt are widely used in the field of chemical, steel iron, melting, carbon black, electricity, cement etc and all kinds of filter bag.



Feature

- High heat, resistance
- High porosity, small filter resistance to gas

Application

- Steel
- Metallurgy
- Nonferrous metal
- Bitumen
- Firepower Electricity generation
- Cement
- Coke
- Fireproof materials and other coal powered Fields for dust removal.

Specification

Thickness	Length	Inner Diameter	Section Diameter	Weight(g/m ²)
1~2mm	3200	200+3.0	2~4mm	≥900
1.5~2.5mm	3200	200+3.0	3~5mm	≥900

Strength N/5x20cm		Break Intension (N/cm ²)	Air Permeability (l/m ² ·s)
Warp	Weft		
1800	1400	400	15~35
1300	350	350	15~35

Poly-P-Phenylene Sulfide (PPS) Needle-Punched Filter Felt

MS Poly-P-Phenylene Sulfide (PPS) needle-punched filter felt are mainly be used in steel, metallurgy, nonferrous metal, bitumen, firepower Electricity generation, cement, coke, fireproof materials and other coal powered Fields for dust removal.



Feature

- High heat, resistance
- Low pressure drop
- High acid, resistance
- Good dust cleaning

Application

- Steel
- Metallurgy
- Nonferrous metal
- Bitumen
- Firepower Electricity generation
- Cement
- Coke
- Fireproof materials and other coal powered Fields for dust removal.

Specification

Fiber Composition	PPS
Base Fabric Composition	PPS
Weight (g/m ²)	550
Thickness (mm)	1.8
Density (g/m ³)	0.3
Air Permeability (m ³ /m ² /min)	10
Warp Strength (N/5×20cm)	1000
Weft Strength (N/5×20cm)	1300
Warp Tensile Elongation (%)	40
Weft Tensile Elongation (%)	50
Working Temperature (°C)	170
Short Working Temperature (°C)	232
Surface Treatment	Singeing、 calendaring、 heat setting

PTFE (Polytetrafluoroethylene) Needle-Punched Filter Felt

A 260°C (500°F) maximum service temperature, 100% expanded polytetrafluoroethylenecoated felt filter bag that incorporates a conductive staple to offer static dissipation in pulse jet style dust collectors with chemically aggressive operating conditions.



Feature

- High temperature resistance
- High corrosion resistance

Application

- Steel
- Metallurgy
- Nonferrous metal
- Bitumen
- Firepower Electricity generation
- Cement
- Coke
- Fireproof materials and other coal powered Fields for dust removal.

Specification

Fiber Composition	PTFE
Weight (g/m ²)	700
Thickness (mm)	1.8
Air Permeability (m ³ /m ² /min)	11
Warp Strength (N/5×20cm)	950
Weft Strength (N/5×20cm)	1100
Working Temperature (°C)	250
Short Working Temperature (°C)	280
Acid resistant	Strong
Alkali resistant	Strong
Oxidation	No
Hydrolyze	No
Surface Treatment	Singeing、 calendaring、 heat setting