

Product Overview **Filter Fleece**

Overview

As a medium-sized family business from southern Germany, we are your partner in filtration matters with over 15 years of experience. For us, competent advice, high flexibility and short reaction times in a partnership with you are our top priority.

Our core competence is the provision of filter fleece and various filter elements as well as filter technology for solid-liquid separation.





Nonwoven types

Here you will find a detailed overview of our nonwovens.



Selection diagram

With our selection guide you will find the right fleece quality. Page 6



Production

We cut filter fleece rolls according to customer requirements. Page 7



Useful information

Information on nonwovens and their filter properties.



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Page 4



Belt filter systems

The most common belt filter types at a glance.



Other products

Our products in the field of air and liquid filtration.









Three Steps to Your Filter Fleece



• Current nonwoven type



2

- nonwoven consumption
- and medium
- Finer / coarser filtration
- Better component quality





• Cost reduction due to reduced • Longer service life of pumps, tools



3

Filter fleece selection

- Assortment of over 100 different fleece types
- Comparison of the actual/target product properties
- Systematic decision to achieve the goal

Overview Nonwoven Types



Fiber composition 100 % polyester

Bonding Mechanical (hydroentanglement)

Filtration type Depth filtration (3D)

Grammage 50 - 300 g/m², e.g. 50 | 70 | 100 | 150 g/m²

Machining process Milling, grinding, honing, smoothing, lapping

Medium Cooling lubricants, mineral oils, water

Belt filter recommendation Gravity, inclined bed, compact, vacuum and pressure belt filter

 \bigcirc Uniform pore structure

⊘ Versatile in use

S-PES-N Needle felt

Fiber composition 100 % polyester

Bonding Mechanical (needle punched & calandered)

Filtration type Depth filtration (3D)

Grammage 40 - 300 g/m², e.g. 40 | 60 | 80 | 125 | 150 | 300 g/m²

Machining process Drilling, turning, milling, grinding, honing, smoothing

Medium Cooling lubricants, mineral oils, water

Belt filter recommendation Gravity, inclined bed, compact, vacuum and pressure belt filter

O Mechanically bonded nonwoven (binder-free)

⊘ Versatile in use

S-PES-B

BICO nonwoven

Fiber composition 100 % polyester

Bonding Thermal

Filtration type Depth filtration (3D)

Grammage 40 - 150 g/m², e.g. 40 | 70 | 100 | 130 | 150 g/m²

Machining process Drilling, turning, milling, grinding, honing, smoothing

Medium Cooling lubricants, mineral oils, water

Belt filter recommendation Gravity, inclined bed, compact, vacuum and pressure belt filter

Highly efficient filter fleece

Gradient fiber structure (3 layers)

S-PES-PO

Embossed PES nonwoven

Fiber composition 100 % polyester

Bonding Thermal/mechanical

Filtration type Surface filtration (2D)

Grammage 20 - 70 g/m², e.g. 30 | 50 | 70 g/m²

Machining process Drilling, turning, milling, grinding

Medium Cooling lubricants, mineral oils, water

Belt filter recommendation Vacuum and pressure belt filter

O Use with precoat O Very high transverse / longitudinal tensile forces

S-PES-F

Spunbond

Fiber composition 100 % polyester

Bonding Thermal

Filtration type Surface filtration (2D)

Grammage 20 - 100 g/m², e.g. 30 | 40 | 50 | 60 | 70 | 80 | 100 g/m²

Machining process Drilling, turning, milling, grinding, honing, smoothing Medium

Cooling lubricants, mineral oils, water

Belt filter recommendation Gravity, inclined bed, compact, vacuum and pressure belt filter

⊘ Binder-free

⊘ Very high transverse / longitudinal tensile forces



Polypropylene nonwoven

Fiber composition 100 % polypropylene

Bonding Thermal/mechanical

Filtration type Surface filtration (2D)

Grammage 20 - 70 g/m², e.g. 20 | 30 | 40 | 50 | 70 g/m²

Machining process Drilling, turning, milling, grinding

Medium Cooling lubricants, mineral oils, water, acids, bases

Belt filter recommendation Vacuum and pressure belt filter

Good chemical resistance O Very high transverse / longitudinal tensile forces

S-CV Viscose nonwoven

Fiber composition 100 % viscose

Bonding Chemical (binder)

Filtration type Surface filtration (2D)

Grammage 20 - 60 g/m², e.g. 20 | 25 | 30 | 35 | 40 | 50 | 60 g/m²

Machining process Drilling, turning, milling, grinding

Medium Cooling lubricants, mineral oils, water

Belt filter recommendation Gravity, compact belt filter

Biodegradable

O Proven filter fleece for many years

The types of fleece shown here are our standard range. We can also offer numerous other nonwovens.

> We will be happy to check your needs and answer any other questions you may have about our filter fleeces.

Selection Diagram



Other Influencing Factors

In addition to the processing method, the following factors influence the selection of the filter fleece:



Production



Roll lengths	On customer request
	Standard lengths: e.g. 50
Core diameter (inside)	70 76 mm
Inflow area	Inside Outside (for fleece t



80 | 100 | 150 | 200 m

types with inflow area)

Useful Information about Nonwovens

In addition to the raw material, the properties of nonwovens depend to a large extent on the type of **bonding**. Factors such as pore volume, addition of chemical binders/additives or any fiber release into the medium play an important role in filtration. These parameters can be adjusted via the bonding process.



Mechanical Bonding of loosely arranged fibers by barbed needles or high

pressure water jets.



Thermal Contact point bonding of the thermoplastic polymer fibers through exposure to higher temperatures.

Difference Between 2D and 3D Filter Fleeces



Surface filtration

Retention of particles **on top** of the filter medium. Therefore only a limited filter cake formation is possible.

- Suitable for pre-filtration as well as coarser particles
- O Mostly chemically/thermally bonded fleeces





Depth filtration

Retention of particles **inside** the filter medium. Additional filter cake formation, which contributes significantly to the separation efficiency.

Chemical

Bonding of a fiber structure by

applying or spraying chemical

binders.

- Improved throughput, service life and increased initial separation efficiency
- Mostly mechanically bonded nonwovens



Belt Filter Systems



Gravity belt filter

Gravity belt filters are the simplest and cheapest version of industrially used belt filter systems. They are easy and flexible in use.



S-PES-W
S-PES-N
S-PES-B
S-PES-F
S-CV

Compact belt filter

The advantage of this belt filter, also known as a drum belt filter, is its compact and space-saving design.





Pressure belt filter

In contrast to the vacuum system shown, the functional principle of the pressure belt filter works with overpressure on the dirt side.



S-PES-W
S-PES-N
S-PES-B
S-PES-F

Inclined bed belt filter

The additional pressure generated by the water column compared to gravity belt filters enables better utilization of the filter fleece.



Vacuum belt filter

Vacuum belt filters are often used as central systems. Due to the pressure difference generated, the filter fleece is used extremely well and a good filter cake is obtained.



Other Products





Cartridge Housings Available in numerous lengths made of stainless steel or PP.

Bag filter housings Available in different sizes - made of stainless steel or polypropylene.



Special constructions Various filter systems in the field of filter technology.



Pocket filters Standard and custom sizes with filter classes G2 - F9.



Filter media As roll goods or cut to size



Other air filters Compact filters, HEPA filters, filter cells & more.

Air filters



Liquid filters

Filter cloths

Individual production in various

qualities for chamber filter presses.



Filter bags PES/PP/NMO - needle felt or fabric filter bags.



Filter cartridges Large selection of materials and designs.



Become our partner

We are your partner when it comes to industrial filters & filter technology. As a medium-sized family company with many years of experience in the filtration industry, we respond flexibly to your inquiries and offer you competent advice.





Metalworking





flexible





competent





Food & Beverages

Surface Finishing



Sanin Filtertechnik Fascination for Filtration



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