

# Filter Solutions for Vacuum Belt Filters

Process Filtration



**S E F A R**  
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## Sefar filter solutions for process filtration

For over 180 years, Sefar has been a leading problem solver, providing technical woven solutions, worldwide. In today's demanding solid-liquid and solid-gas separation processes, it is crucial to have maximum production efficiency along with trouble-free operation to decrease customer's total cost of ownership. We offer the broadest selection of filtration and separation products, backed by an experienced staff of application experts.

## Sefar filter belt solutions for vacuum belt filters

Understanding the filtration process is one key requirement for filter solution development. This is a Sefar core competence. We have spent decades developing filter media made from synthetic yarns. Sefar's innovative synthetic fabrics are the material of choice for horizontal vacuum belt filters. Sefar filter belt solutions offer excellent separation efficiency and a long, trouble-free lifetime.



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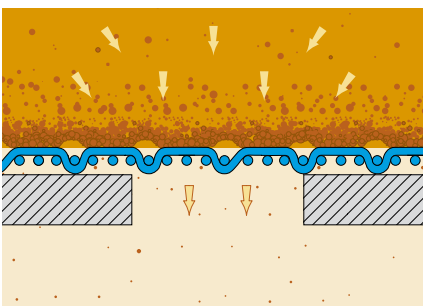
## Many application areas – one solution provider

The wide range of products processed on horizontal vacuum belt filters requires a large selection of filter media to enhance the specific process. Subsidiaries in 26 countries provide local technical service for the broad range of solutions supplied to the various industries and equipments.

Choose Sefar as your trusted source for filtration and screening products. We are ready and capable to meet your needs.

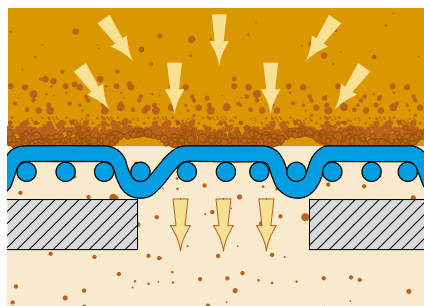
## Double layer weave technology

The filter media's unique construction combines two different fabric layers mechanically through weaving. In comparison to a single layer fabric, belts made from SEFAR TETEX® DLW deliver outstanding filtration results: high vertical and lateral liquid flow properties, excellent resistance against creasing and mechanical stress. Best filtration results and enhanced lifetime is achieved by combining the functions of a fine filtration layer and a support drainage layer.



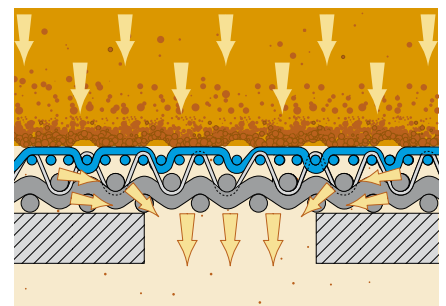
Fine single layer belt

- Fine filtration
- Small throughput
- Low turbidity
- Weak filter belt
- Reduced active filtration area



Coarse single layer belt

- Coarse filtration
- High throughput
- High turbidity
- Strong filter belt
- Reduced active filtration area



SEFAR TETEX® DLW

- Fine filtration
- High throughput
- Low turbidity
- Strong filter belt
- Improved active filtration area

# Solid-Liquid Separation Industries and Applications



## Many application areas – one solution provider

To cope with the demanding environment of the various process industries, Sefar has developed a dedicated range of filter media in order to maximize the customer's value.

SEFAR TETEX® DLW filter media are the industries preferred solutions for horizontal vacuum belt filters – trust Sefar filter belt solutions!



### Chemical

Sefar products perform at high levels, even under aggressive conditions. Count on Sefar to meet the demands of your application process – whether it's extreme pH, high temperatures, or specific chemical environments like solvents, oxidants, acids or alkalis.

#### Applications

ABS resin, BPA, catalysts, fertilizer, polymers, pigments, PTA, phosphoric acid, silicates, soda bicarbonate, sulfuric acid, zeolite



### Mineral

Sefar meets the high quality and productivity demands in challenging applications. Our products offer reliability in filtration by using strong woven fabrics, adapting the correct pore size to the application and providing resistance to abrasive slurries or a heavy cake.

#### Applications

Aluminium, flotation concentrates (coal, copper, iron, zinc), garnet, phosphoric rock and acid, potash, rare earth, tailings, titaniumdioxide



### Environmental

Sefar has a solution for each application used in sludge dewatering. No matter what the characteristics of your treatment, you can trust Sefar to meet the challenges of your sludge dewatering preparation.

#### Applications

Coolant purification, flue gas desulfurization, fly ash, waste water



### Life Science

Sefar production methods and facilities are integrated to include verifiable traceability for life sciences industries. Only Sefar controls the yarn production, weaving and filtration through to the final filter. The Sefar PHARMA GMP program satisfies the regulatory requirements of pharmaceutical applications.

#### Applications

Active pharmaceutical ingredients, agrichemicals, nutraceuticals, intermediates



### Food

In food applications, conformity to hygienic and safety guidelines is imperative. For this reason, a reliable supplier like Sefar – able to provide you with FDA or EU compliant fabrics for filter products – is crucial to your success. You can also count on Sefar's consistent supply of products during seasonal production peaks.

#### Applications

Citric acid, glutamate, gluten, lactic acid, lecithin, lignin, spirulina, starch, vanilin

# Filter Media for Vacuum Belt Filters Process Requirements

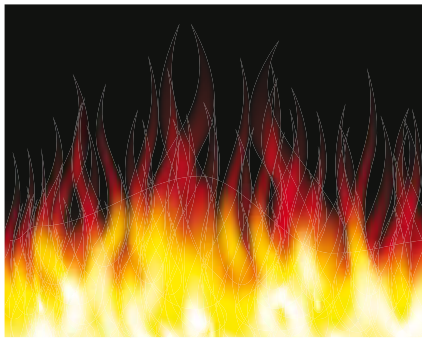


## Chemical resistance

### Acid or alkaline behavior

Sefar filter belts are made from carefully selected polymers such as PP, PET, PVDF and PEEK.

The right choice of polymer helps to ensure the appropriate chemical resistance for each specific filter belt application.



## Temperature resistance

### Choice of material

Belts from Sefar are designed to maintain their performance during their entire life and ensure trouble-free operation.

The appropriate selection of material is crucial to ensure performance under critical temperatures (i.e. cake post-drying).

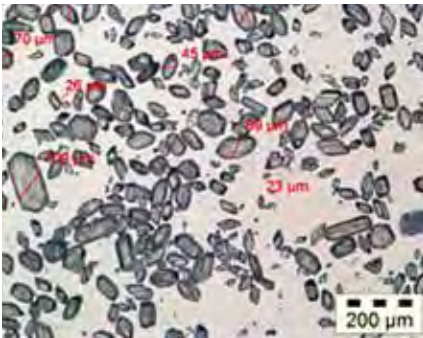


## Mechanical properties

### Enhanced belt strength

Sefar belts are designed to cope with heavily loaded and extra large vacuum filter units.

SEFAR TETEX® DLW Heavy Duty is specially optimized for high strength, the best tracking stability and the longest possible belt life.



**Suspension properties**

**Pore size selection**  
 The offered pore size selection ranges from 7 µm to over 150 µm for the processing of various suspensions.

Depending on the slurry properties, Sefar offers the suitable filter solution to meet your requirements concerning particle retention and filtrate clarity.



**Filtration capacity**

**Permeability properties**  
 Vacuum filter belts from Sefar have a maximized number of pores and optimized permeability to guarantee the expected throughput.

Special needs concerning cake dryness or high filtration efficiency can be met by using SEFAR TETEX® DLW High Capacity.



**Belt installation**

**Customized solutions**  
 Sefar offers innovative, proven and reliable closure systems for the entire belt range – from particle tight to chemical resistant.

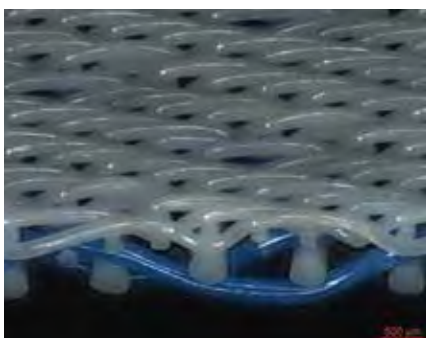
No additional installation equipment is necessary using Sefar filter belts. A trouble free and quick installation is guaranteed.

# Filter Media for Vacuum Belt Filters

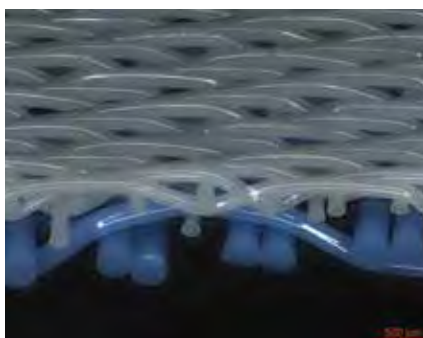
## Product Solutions



Material	Temperature Max. recommended temp. under wet condition	Chemical resistance ← Acidic      Neutral      Alkaline →	Product line (Sefar ID)
Polypropylene (PP)	75°C	<p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 Organic solvents may limit usage</p>	<b>TETEX® DLW Classic</b> (05-8000) <b>TETEX® DLW HD</b> (05-8100) <b>TETEX® DLW HC</b> (05-8800)
Polyester (PET)	90°C	<p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 Good resistance against most solvents TETEX® DLW HD has improved hydrolysis resistance</p>	<b>TETEX® DLW Classic</b> (07-8001) <b>TETEX® DLW HD</b> (07-8004)
E-CTFE	110°C	<p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14</p>	<b>TETEX® DLW Classic</b> (08-8000)
PEEK	140°C	<p>0 1 2 3 4 5 6 7 8 9 10 11 12 13 14</p>	<b>TETEX® DLW Classic</b> (17-8000)



SEFAR TETEX® DLW Classic  
Polyester, 120 µm average pore size

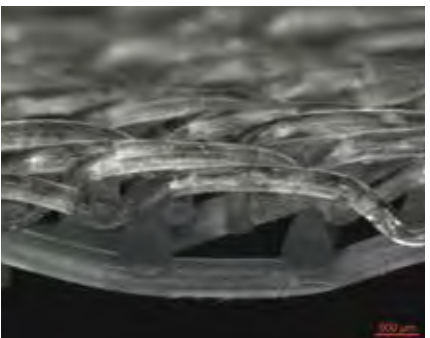


SEFAR TETEX® DLW HD (Heavy Duty)  
Polyester, 120 µm average pore size

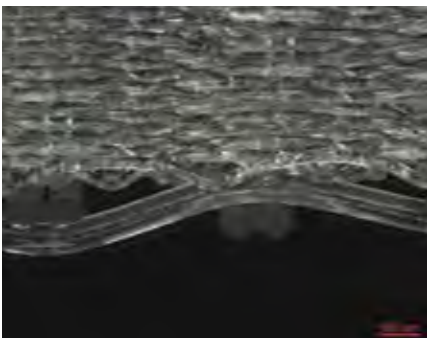




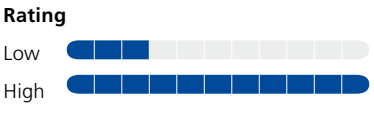
Product line	Filtration performance Pore size & count, air permeability, dewatering performance	Mechanical properties Belt strength, tracking stability, lifetime	Product line characteristics
<b>TETEX® DLW Classic</b> <b>TETEX® DLW HD</b> <b>TETEX® DLW HC</b>			Widest pore size selection Enhanced belt strength Highest filtration efficiency
<b>TETEX® DLW Classic</b> <b>TETEX® DLW HD</b>			Wide pore size selection Enhanced belt strength
<b>TETEX® DLW Classic</b>			Best corrosion stability
<b>TETEX® DLW Classic</b>			High process temperatures and best chemical resistance



SEFAR TETEX® DLW HD (Heavy Duty)  
Polypropylene, 161 µm average pore size



SEFAR TETEX® DLW HC (High Capacity)  
Polypropylene, 120 µm average pore size



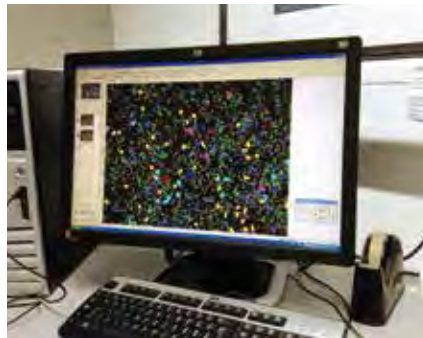
Fabric rating is based on known processes and depends on local conditions and chemical or thermal interaction.  
High temperature resistant finishing is available on request.

# Test Equipment Technical Support

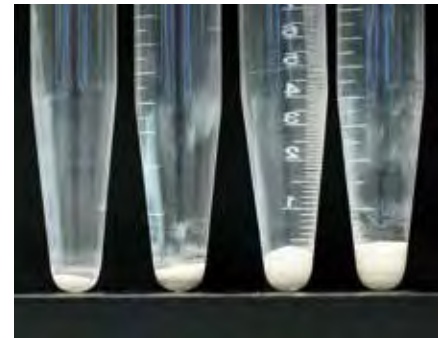


## Application laboratory

To analyze product behavior, Sefar has specially designed testing equipment to reproduce the customer's filtration process.



Particle size analysis



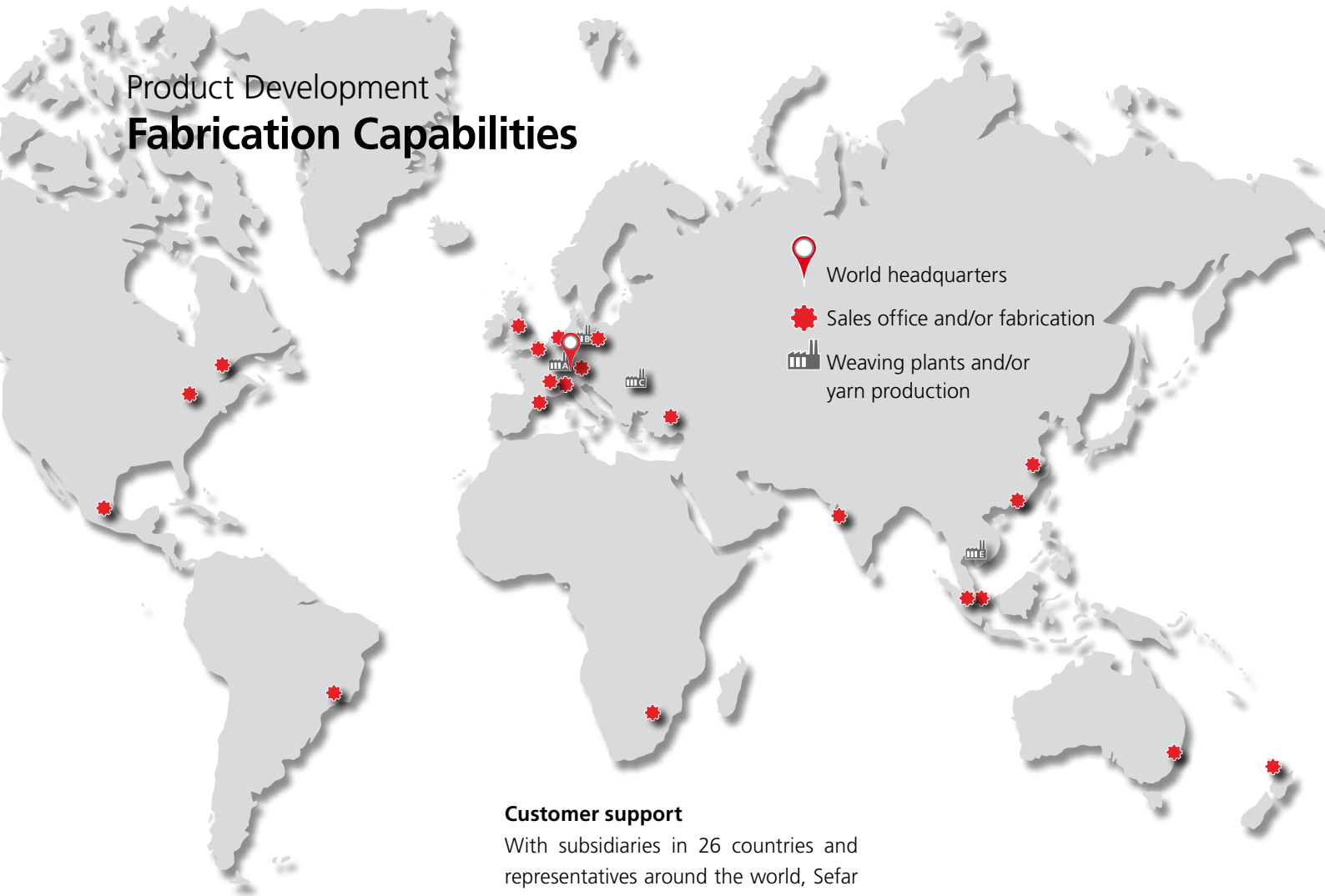
Filtration tests



## Services

- Suspension analysis
- Particle size distribution
- Customer specific filter tests
- Filter media recommendation
- Process optimization

# Product Development Fabrication Capabilities



## Customer support

With subsidiaries in 26 countries and representatives around the world, Sefar offers its customers the comprehensive, global support they need.

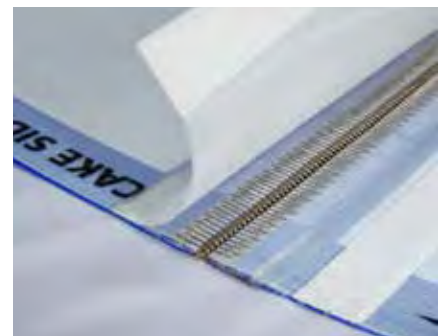
## Fabrication capabilities

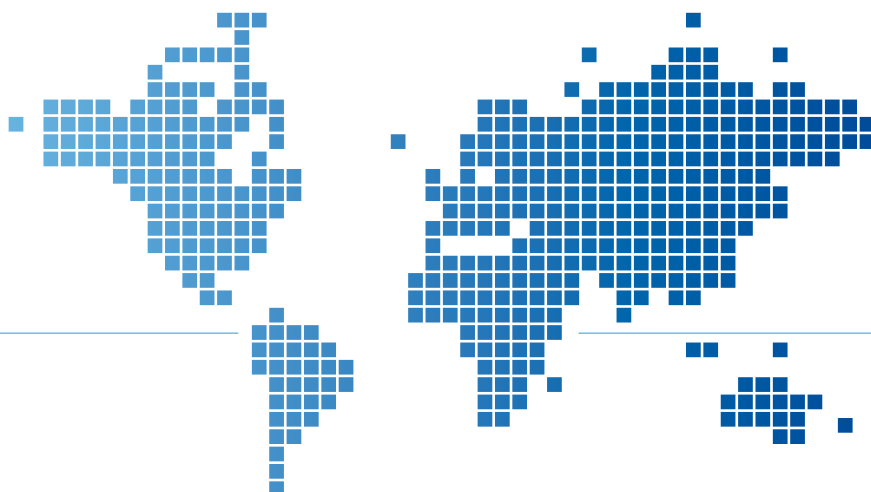
Fitting belts to the specific filter equipment is essential for smooth and efficient filtration performance.

The market-leading expertise of Sefar helps to define the most suitable filter media and fabrication method for your application. With Sefar's unique belt design you can count on smooth and consistent performance.

## Available features

- Customized closures
- Edge Sealing
- Belt labelling





## Sefar worldwide

Sefar is the leading manufacturer of precision fabrics from monofilaments for the screen printing and filtration market. Sefar products are used in a wide variety of industries, reaching from electronics, graphics, medical, automotive, food and pharmaceutical applications to aerospace, mining & refining and architecture. With its profound understanding of the applications, Sefar helps its customers to achieve optimum results in their industrial processes. Subsidiaries and fabrications centers around the world provide local technical service for the broad range of solutions offered by Sefar.

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Please consult the current local product data sheet prior to any use.

