

## FILTER

Special sewing threads  
for extreme conditions





The sewing thread has to withstand a lot when used for filtering. Our special sewing threads are therefore optimised for the toughest conditions.

### SPECIAL SEWING THREADS FOR TEXTILE FILTERS

# EXTREMELY ADAPTABLE

Pure air, clean water: Modern filter technology accomplishes what has long been unimaginable – it transforms polluted industrial areas into clean cities, turns oil-contaminated rivers into clear waters, and converts acrid waste gases into pure air. As such, sewing threads for industrial filters have to be extremely adaptable. Moreover, they need to maintain their properties over a long period of time, as corrosive chemicals, oil, permanent moisture and gases at temperatures of up to 250 °C represent real challenges for textile filters. In order for them to be able to perform even under extreme conditions, their seams must be highly robust and hold together under all circumstances.

Whether for filter mats, pocket filters or HEPA filters. Whether wet or dry filtration: our special sewing threads have been specially developed to withstand the toughest conditions. For greater safety and better protection of people and the environment. Sewing threads made of synthetic fibres have proven to be particularly effective, as they combine properties such as breaking strength and chemical resistance. Depending on the field of application, different requirements and properties are placed on the optimum sewing thread. We offer you the ideal solution for every application.



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### Diverse properties

Our robust special sewing threads for filters must have at least one of the following properties:

- Resistance to temperatures
- Resistance to chemicals
- Resistance against hydrolysis
- Breaking strength
- Low shrinkage at high temperatures

Important: The sewing thread must always be matched individually to the respective filter and the medium to be filtered (i.e. gas, dust, moisture or liquid filter).

## OUR SEWING THREAD SOLUTIONS

In over 50% of cases, polyester is the fibre material most commonly used for filtering purposes. However, a pure polyester fibre is

often not sufficient for extreme conditions. Our broad range of products offer you the right solution for a wide variety of filter applications.



### Tera SF / Filan SF

**100% POLYESTER  
CONTINUOUS FILAMENT,  
SILICONE-FREE**

**Applications:** For filters that require silicone-free properties.

**Product advantages:** Suitable for wet and dry filtration. Excellent breaking strength and silicone-free.

|  |                        |                       |
|--|------------------------|-----------------------|
| Available strengths                    | Tkt. 30 – dtex 1000(3) | Tkt. 40 – dtex 750(3) |
| Breaking strength                      | 4.400 cN – 5.600 cN    | 3.700 cN – 4.500 cN   |
| Thermal shrinkage<br>(160 °C / 30 min) | < 3 %                  | < 3 %                 |

*further strengths available on request*



### Poly / Poly SF

**100% POLYESTER  
CORE SPUN THREAD,  
SILICONE-FREE**

**Applications:** For distance seams on pocket filters (HVAC) or similar.

**Product advantages:** Good breaking strength and silicone-free.

|  |                       |
|--|-----------------------|
| Available strengths                    | Tkt. 80 – dtex 400(2) |
| Breaking strength                      | 1.850 cN – 2.450 cN   |
| Thermal shrinkage<br>(160 °C / 30 min) | < 4 %                 |



### Polypropylen SF

**100% POLYPROPYLENE  
CONTINUOUS FILAMENT,  
SILICONE-FREE**

**Applications:** For filters that require a high level of chemical resistance. Well suited for liquid filtration. Anti-adhesive and thus also suitable for oil filters.

**Product advantages:** Excellent resistance to chemicals. Excellent breaking strength and high moisture resistance. Silicone-free and anti-adhesive.

|  |                        |                       |
|--|------------------------|-----------------------|
| Available strengths                    | Tkt. 30 – dtex 1050(3) | Tkt. 40 – dtex 750(2) |
| Breaking strength                      | 4.600 cN – 5.400 cN    | 3.800 cN – 4.200 cN   |
| Thermal shrinkage<br>(160 °C / 30 min) | < 4 %                  | < 4 %                 |



## Polyacryl - Dolanit®

**100 % POLYACRYLIC  
SPUN**

**Applications:** For filters that require high dry heat resistance and resistance to chemicals, such as acid hot gas filtration.

**Product advantages:** Good dry heat resistance. Continuous temperature resistance of approx. 125 °C. Good chemical and hydrolysis resistance.

|  |                        |
|--|------------------------|
| Available strengths                    | Tkt. 30 – dtex 1000(3) |
| Breaking strength                      | 3.040 cN – 3.760 cN    |
| Thermal shrinkage<br>(160 °C / 30 min) | < 3 %                  |



## PTFE

**100% POLYTETRAFLUORETHYLENE  
CONTINUOUS FILAMENT**

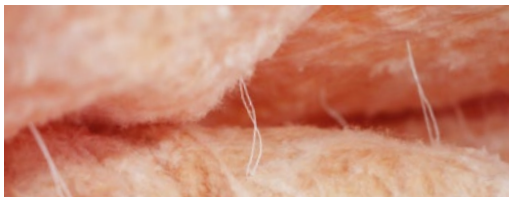
**Applications:** For wet and dry filters, hot gas filters and liquid filters, as well as filters that require a high level of chemical and heat resistance.

**Product advantages:** Excellent resistance to chemicals. Highly temperature-resistant. Continuous temperature resistance of up to approx. 260 °C. Can withstand short-term temperatures of 300 °C. Extremely tear- and abrasion resistant. High moisture resistance. Hardly flammable.

|  |                        |
|--|------------------------|
| Available strengths                    | Tkt. 30 – dtex 1300(3) |
| Breaking strength                      | 4.000 cN – 5.600 cN    |
| Thermal shrinkage<br>(160 °C / 30 min) | < 1,5 %                |

## For highly heat-resistant filters

Aramid fibres are extremely heat-resistant, making them particularly suitable for use in hot gas filtration. Our product range includes everything, from continuous filaments to spun sewing threads.



### OUR RANGE OF ARAMID FIBRES:

- + Gütermann L - continuous filament
- + Gütermann K - spun, long staple
- + Anesafe® - spun, short staple
- + Salta K - spun, short staple

### PRODUCT BENEFITS AT A GLANCE:

- + High heat resistance
- + Withstands up to approx. 360 °C for short periods
- + Withstands permanently up to approx. 260 °C
- + Good chemical resistance against light acids and alkalis

### A&E GÜTERMANN – SERVICE UNLIMITED

Should you find that your requirements are not covered by our current product range, we look forward to the challenge of developing an optimal solution for you. We're glad to help you.



#### Get in touch:

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SEAMS UNLIMITED

# A SPECIALISED ALL-ROUNDER

**The name Gütermann has stood for premium quality for over 150 years in the textile industry, that means perfect seams – through uniformity, a silky shine, a smooth texture, tear resistance and maximum flexibility. To offer our customers sustainable support, we also need to be flexible in how we approach the requirements of today's market and current fashion trends.**

We continuously adapt our products to meet these requirements. We produce sewing thread products for the consumer, industry and automotive sectors which are precisely designed to meet the needs of our customers. They are carefully developed by our textile specialists so that they always have the same quality. When manufacturing processes reach their limits, we take things to the next level, we optimise our technologies and keep up with the latest developments in research. That's how innovation happens. And the quality promise of A&E Gütermann remains.

Your perfect seam starts with us. In the past, workers worked in isolation on their specific craft. In our plants in Germany and Slovenia, highly specialised textile technologists, engineers, chemists and dyers work together to ensure that all the details are coordinated.

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## **Saving water in the textile industry**

A&E Gütermann aims to reduce water consumption in all of its sites worldwide, many of our plants process wastewater into drinking water. In addition, a hydropower plant provides the water supply for all our production needs in Gutach im Breisgau.

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## **A strong connection – Around the world**

Since our merger as A&E Gütermann in 2014, we support your value chain worldwide. The smooth flow of materials and information minimizes your costs and creates transparency.



