

WORKWEAR
GUIDE

Gütermann



Reliable sewing threads for PPE and workwear: safety starts at the seam.

Workwear is multifunctional and one of the most important tools in many workplaces. In demanding work environments, every detail counts, so the expectations for quality, functionality and comfort are high. This is particularly important for clothing that needs to provide comfort and protection.

Personal Protective Equipment (PPE) and Workwear are essential for ensuring the safety, functionality and professional appearance of employees. Selecting the right sewing thread and ensuring high-quality seams plays a central role here. The seams must be able to withstand extreme stresses, provide permanent reliability, and meet the specific requirements of the respective industry.

Thread requirements

- High tear and abrasion resistance
- Resistance to washing and chemicals
- Colour fastness
- High heat resistance and flame-retardant properties
- Processing efficiency (e.g. make-up, machine processing)

High-performance materials at a glance

Certain materials require special seams. Seams that cannot be compromised. Choosing the right sewing thread is crucial for the quality and safety of the entire garment. Our sewing threads for PPE and workwear are based on innovative materials and advanced manufacturing technologies that have been specially developed for demanding applications.

Polyester

Universally applicable, abrasion-resistant and colourfast – ideal for robust workwear with high wash resistance.

Polyamide

Particularly elastic and tear-resistant – suitable for heavily stressed seams and flexible garments.

Meta-aramid

Flame-retardant and chemical-resistant – ideal for protective clothing requiring fire protection.

Para-aramid (Kevlar®)

Extremely heat and cut-resistant; ideal for e. g. protective suits, military and police use.

PTFE & special yarns

Ideal for use in extreme conditions, such as in the chemical industry or for filtration.

Industries & segments

Our sewing threads for PPE and workwear have been developed to meet the challenges related to these applications. They offer maximum tear resistance, as well as thermal and chemical resistance, and optimal processing properties. This makes them the ideal choice for manufacturers of high-quality PPE and workwear.

They are used in numerous industries where safety, function, and durability are key, such as:

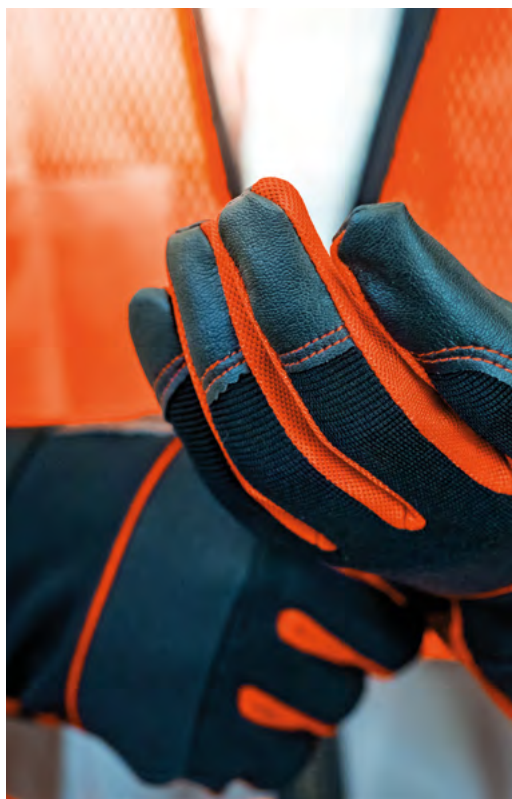
- Firefighting, rescue services, and police
- Industry and trade
- Healthcare and nursing
- Logistics and transport
- Agriculture and forestry
- Facility management and cleaning
- Military and aviation



Certified quality

Our sewing threads are a functional and integral part of high-quality PPE and workwear. We offer a wide range of threads to meet your need and all of our products are certified to relevant standards, including EN ISO, OEKO-TEX®, UL and DIN EN ISO 15797 for industrial laundries.

Meta-aramid sewing threads meet the DIN EN ISO 15025 standard for protective clothing, making them ideal for applications where compliance with the DIN EN 469, EN ISO 11612, EN ISO 11611 and EN ISO 14116 standards is required.



Play it safe with heat-resistant sewing threads



In hazardous working environments, Personal Protective Equipment (PPE) is essential. Safety clothing and footwear must meet very high standards. Reliability and safety are always the top priorities.

This equipment is intended to protect people from heat, flames, chemicals, mechanical impacts and other risks. It must meet the highest standards of functionality, comfort and durability, and comply with all legal requirements.

Seam technology for personal protective equipment (PPE)

Aramid sewing threads are the best choice for heat- and flame-resistant clothing. The product range includes various materials, raw materials, and thread constructions.

Key advantages

- ♦ Seam strength even under extreme heat and non-melting
- ♦ Flame retardant and self-extinguishing
- ♦ Good chemical resistance to weak acids and alkalis
- ♦ High tear and abrasion resistance
- ♦ Excellent mechanical stability

Our product solutions

Gütermann K 403 | 753

This spun sewing thread is made from 100 % Nomex® long staple aramid fibres. Thanks to its special construction, it has high tensile strength and can withstand heat up to approximately 360 °C for short periods, making it ideal for applications where flame retardancy, heat resistance and tear resistance are crucial.

Anesafe® 36 | 50 | 75 | 120

Anesafe® is spun from 100 % short-staple Nomex® aramid fibres. It is the most popular aramid sewing thread for manufacturing heat-resistant and flame-retardant clothing and equipment and can withstand temperatures of up to approx. 360 °C for short periods.



Gütermann K AR 403 | 753

The short-staple spun sewing thread made from 100 % meta-aramid, is ideal for use in protective workwear and equipment, offering both heat and flame resistance and economical solutions.

Gütermann L 753 | 1503

This continuous filament is made of 100 % meta-aramid/Nomex® and ideal for applications requiring flame-retardant and self-extinguishing properties combined with high tear resistance. It can withstand temperatures of up to approximately 360 °C for short periods and 260 °C for longer periods.

Acero 15 | 30

The wrapped yarn with stainless steel fibre core is highly cut-resistant and heat-resistant up to 700 °C under mechanical stress or 1000 °C without. The Kevlar® sheathing provides strength, low density, and good chemical resistance to acids and alkalis.



In high-risk operational sectors such as the police, security services and the military, protective clothing with cut-resistant and bulletproof properties is indispensable. The durability and protective effect of the product are heavily dependent on the materials used and the processing techniques employed. A central role is also played by special threads that can withstand extreme forces and can be processed efficiently at the same time.

Aneguard using Kevlar® 27 | 36 | 50

This high-performance sewing thread is made from 100 % Kevlar® para-aramid and is used for cut- and tear-resistant clothing. It is highly heat-resistant, withstanding temperatures of up to 420 °C for short periods, and resistant to weak acids and alkalis.

Protection that endures stitch by stitch

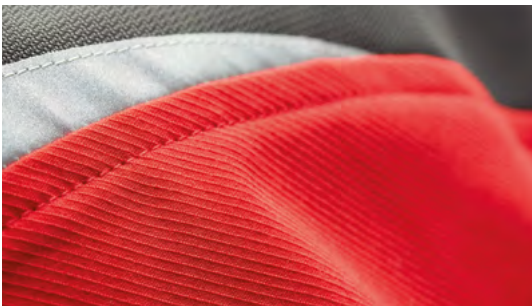
Your workwear products ensure workplace safety, protect against injuries and increase productivity, allowing both employees and employers to focus on their work. Good Job! We support you with high-quality sewing threads that meet the requirements of modern textile applications, offering durability, comfort and performance.





Strong sewing threads for strong workwear

Workwear can look good! While safety and functionality remain paramount, modern workwear has to fulfil design and comfort requirements too. Our high-quality garments combine maximum safety with a modern design and excellent wearability, making them ideal for leasing and corporate wear. They are robust, resilient and durable – ideal for workwear that can handle any task.



Our product solutions

Mara 30 | 50 | 70 | 80 | 100 | 120

Our premium sewing thread is made from 100 % polyester and is manufactured using our innovative Micro Core Technology®. Thanks to its excellent performance on automatic machines and its fine cross-section, it produces particularly smooth, even seams with a silk-like sheen. It is perfect for applications requiring durability, ease of care and a professional appearance, such as modern workwear, corporate wear and leasing wear.

Perma Core® 27 | 36 | 50 | 75 | 120

The highly tear and abrasion-resistant corespun thread made from 100 % polyester is exceptionally well suited for heavily stressed seams. Perma Core® is ideal for the manufacturing of workwear that is exposed to enzymatic and chemical treatments.

Perma Spun® 30 | 50 | 75 | 120

Perma Spun® is a spun sewing thread made from 100 % polyester. Thanks to its excellent sewing performance, abrasion resistance, and soft, matt finish, it is an economical solution for simple sewing applications involving closing seams.

Wildcat Plus® 40 | 80 | 160

The textured sewing thread made of 100 % polyester is ideal for covering cut edges and overlock seams. The soft sewing thread was developed for comfortable wear and is ideal for seams that come into direct contact with the skin.

Safe footing step by step



Protecting your feet is essential for safe and productive work, whether on the construction site, in the factory hall, or in everyday care work. Safety shoes offer much more than just robust footwear.

They protect against injuries, provide stability and support, and significantly improve wearing comfort.

The quality of the seams is as important as the materials and construction of the shoe. High-performance sewing threads ensure strong connections that can withstand extreme-conditions.

Robust threads for safety shoes

In demanding working environments, seams are exposed to extreme mechanical stress. Especially where leather and synthetic materials meet, the sewing thread must be flexible yet highly durable. Our range offers solutions specially developed for this purpose, including proven polyester sewing threads and high-quality polyamide 6.6 alternatives, which are characterized by particularly high tear and abrasion resistance.

Thanks to a wide range of thread counts, our products can be optimally tailored to their respective application. This ensures reliable performance and durable seam quality, even under the toughest conditions.

Our product solutions

Tera 10 | 20 | 30 | 40 | 60

Tera is a continuous filament thread made from 100 % polyester suitable for heavy-duty, tear- and abrasion-resistant shoe seams. The optimal elasticity of the sewing thread ensures beautiful, even, decorative seams.

Amifil 13 | 20 | 30 | 40 | 60

This 100 % polyamide 6.6 continuous filament is characterized by its excellent stretch properties and high tear resistance. Offering reliable machine safety, it is the ideal choice for closing and decorative seams in safety shoes, which must withstand extreme mechanical stress.

Zwibond 13 | 20 | 30 | 40 | 60

The inner-bonded, continuous thread made of 100 % polyamide 6.6 impresses with its special construction. Thanks to the inner bonding, it does not twist, remains dimensionally stable, and can be reliably processed on machines. For use on two-needle sewing machines and for extremely stressed seams, Zwibond offers maximum durability and precision.

Gütermann L 753 | L 1503

Made of 100 % meta-aramid (Nomex®) for applications requiring heat-resistant and flame-retardant closing & decorative seams.

Anebraid® L 1,0 is a braided, continuous filament thread made from 100 % lubricated polyester, ensuring smooth processing. Thanks to its brilliant appearance and high resistance to rubbing and tearing, it can be used as a needle and gimp thread to create decorative seams.

Antistatik 30/4

This special thread is a corespun thread made of polyamide 6.6 and steel, which has antistatic and conductive properties. It meets the low resistance requirements of DIN EN ISO 20345 for antistatic shoes.

REPEL finish for water-repellent sewing threads

Safety shoes must be able to withstand mechanical stress and provide reliable protection against moisture. Seam stability is key, as even water-repellent upper materials can become vulnerable if the seams are not protected.

Water-repellent REPEL finishing provides an ideal foundation for creating dense seams. This significantly reduces water penetration through the seams. This noticeably improves the functionality of water-repellent safety shoes, keeping your feet dry in adverse weather conditions.

To achieve maximum seam repelancy, we recommend using fine needles and threads to minimise the size of the puncture holes. The thread entanglement's position on the material's underside improves sealing at the puncture points.



Highly durable sewing threads for special equipment

In safety-critical areas such as industry, transport and rescue services, safety is the top priority – every detail counts.

When human lives or heavy loads are at stake, the quality of the seam cannot be compromised.





High-performance sewing threads for safety-critical lifting and carrying straps

When it comes to safety and resilience, our high-performance sewing threads are the obvious choice. They offer maximum tear and excellent abrasion resistance, as well as lasting stability – even under heavy tensile loads, dynamic movements, and adverse environmental conditions. They ensure reliable connections that you can depend on at all times, whether they are manufacturing lifting straps, carrying systems or safety equipment.

Our product solutions

Tera 5 | 8 | 10 | 15 | 20 | 30 | 40

The continuous filament thread is made of 100 % polyester and has been developed for use in extreme conditions. It is highly tear and abrasion-resistant and hardly stretches—making it ideal for safety-critical seams in lifting and carrying straps. Thanks to its thermal stability and resistance to moisture, Tera is particularly well-suited to industrial applications, transport solutions and rescue equipment.

Filan 10 | 20 | 30 | 40

Filan is a high-performance sewing thread made from 100 % polyester that has been specially designed for use in applications involving extreme tensile forces. Thanks to its high tear and abrasion resistance and good elasticity, it is ideal for safety-critical seams in lifting and carrying straps.

Zwibond 13 | 20 | 30 | 40

This inner-bonded, continuous filament yarn, made from polyamide 6.6, was developed to create extremely durable seams. Its thread construction provides excellent tear and abrasion resistance, as well as thermal stability. It is perfect for safety-critical applications where maximum durability and permanent seam security are required

Amifil 13 | 20 | 30 | 40

Amifil is made from 100 % polyamide 6.6 and used to create strong, durable seams in workwear and technical textiles. Thanks to its excellent elongation properties, high tear and abrasion resistance, and smooth surface, it is ideal for use in specialized equipment, such as lifting and carrying straps. Its continuous filament construction ensures uniform, robust seams in both manual and automated manufacturing processes.



Mara

for most beautiful seams

Material / Construction

100 % polyester / Micro Core Technology®

Recommended application

Closing, decorative, overlock, safety & coverstitch seams, straight button holes, eyelet button holes with/without gimp

Product benefits

- + Unique MCT® construction
- + Brilliant colours with a silky appearance
- + Fine thread cross-section for particularly smooth seams
- + Excellent performance on automatic sewing machines
- + No fibre fly

No./Tkt.	dtex	Needle	Make-up	Code
220	130(1)	NM 60 - 65 / 8 - 9	5,000 m	772607
150	200(2)	NM 65 - 70 / 9 - 10	1,000 m	713953
			5,000 m	713961
120	250(2)	NM 70 - 80 / 10 - 12	1,000 m	700207
			5,000 m	700185
100	300(2)	NM 70 - 90 / 10 - 14	1,000 m	707694
			5,000 m	707708
80	400(2)	NM 80 - 100 / 12 - 16	800 m	700428
			5,000 m	700410
70	400(3)	NM 90 - 100 / 14 - 16	700 m	702170
			7,000 m	702153
50	600(3)	NM 90 - 110 / 14 - 18	500 m	702277
			5,000 m	702250
30	1000(3)	NM 110 - 130 / 18 - 21	300 m	702404
			3,000 m	702358
15	2000(3)	NM 140 - 160 / 22 - 23	150 m	720623
			1,500 m	720429
11	2600(4)	NM 160 - 180 / 23 - 24	110 m	702510
			1,130 m	702501



Available with a water-repellent finish upon request.



Tera

for brilliant seams

Material / Construction 100 % polyester / Continuous filament

Recommended application Closing & decorative seams

- Product benefits**
- + Durable, robust seams
 - + Very high tear resistance
 - + Very even
 - + Shiny appearance
 - + High rub resistance

No./Tkt.	dtex	Needle	Make-up	Code
80	350(3)	NM 70 - 90 / 10 - 14	2,400 m	704261
			8,000 m	704270
60	500(3)	NM 90 - 100 / 14 - 16	1,800 m	704350
			6,000 m	704369
40	750(3)	NM 90 - 110 / 14 - 18	1,200 m	704440
			4,000 m	704458
30	1000(3)	NM 110 - 130 / 18 - 21	900 m	704601
			3,000 m	704610
20	1500(3)	NM 120 - 140 / 19 - 22	600 m	704687
			2,000 m	704695
15	2000(3)	NM 140 - 160 / 22 - 23	400 m	784290
10	2900(3)	NM 160 - 230 / 23 - 26	300 m	704814
			1,000 m	704822
8	3750(3)	NM 200 - 250 / 25 - 27	800 m	704920
5	6000(3)	NM 250 - 300 / 27 - 29	500 m	704857



Available with a water-repellent finish upon request.



Acero

for extremely heat-resistant seams

Material / Construction	Stainless steel, para-aramide (Kevlar®) / Wrapped yarn
Recommended application	Closing seams
Product benefits	+ Very high heat resistance up to approx. 700°C under mechanical load and up to approx. 1,000°C without mechanical load + Steel wire core with Kevlar wrapping + Very high tear resistance + Good resistance to chemicals

No./Tkt.	dtex	Needle	Make-up	Code
30	1040	NM 100 - 140 / 16 - 22	2,500 m	733488
15	2100	NM 130 - 150 / 21 - 23	2,500 m	733484



Aneguard using Kevlar®

for highly heat-resistant seams

Material / Construction	100 % para-aramide Kevlar® / Spun
Recommended application	Closing, decorative & safety seams
Product benefits	+ Good high-temperature resistance, as can withstand short term temperatures of up to approx. 420°C + Flame retardant and self-extinguishing + Non-melting + Good resistance to chemicals + Very high tear resistance

No./Tkt.	dtex	Needle	Make-up	Code
50	600(3)	NM 110 - 130 / 18 - 21	6,000 yds = 5,486 m	705922
36	800(4)	NM 120 - 140 / 19 - 22	6,000 yds = 5,486 m	705921
27	1050(4)	NM 130 - 140 / 21 - 22	3,000 yds = 2,743 m	705920



Anesafe®

for heat resistant seams

- Material / Construction** 100 % meta-aramide Nomex® / Spun, short fibre
- Recommended application** Closing, decorative & safety seams
- Product benefits**
- + Short-term high-temperature-resistant at approx. 360 °C
 - + Flame retardant and self-extinguishing
 - + Non-melting
 - + Good resistance to chemicals
 - + Very high tear resistance



	No./Tkt.	dtex	Needle	Make-up	Code
Anesafe® 120	120	270(2)	NM 80 - 90 / 12 - 14	5,000 m	705703
Anesafe® 75	75	400(3)	NM 90 - 100 / 14 - 16	700 m	705714
				5,000 m	705702
Anesafe® 50	50	600(3)	NM 100 - 110 / 16 - 18	4,000 m	705705
Anesafe® 36	36	800(3)	NM 110 - 130 / 18 - 21	3,000 m	705704



Gütermann K

for heat resistant seams

- Material / Construction** 100 % meta-aramide Nomex® / Spun, long fibre
- Recommended application** Closing, decorative & safety seams
- Product benefits**
- + Short-term high-temperature-resistant at approx. 360 °C
 - + Flame retardant and self-extinguishing
 - + Non-melting
 - + Good resistance to chemicals
 - + Very high tear resistance



	No./Tkt.	dtex	Needle	Make-up	Code
Gütermann K 403	70	400(3)	NM 90 - 100 / 14 - 16	700 m	701319
				5,000 m	701299
Gütermann K 753	40	750(3)	NM 100 - 110 / 16 - 18	3,000 m	701342



Gütermann K AR

for heat resistant seams

Material / construction 100 % meta-aramide / Spun, Short fibre

Recommended application Closing, decorative & safety seams

Product benefits

- + Short-term high-temperature-resistant at approx. 360°C
- + Flame retardant and self-extinguishing
- + Non-melting
- + Good resistance to chemicals
- + Very high tear resistance



	No./Tkt.	dtex	Needle	Make-up	Code
Gütermann K AR 403	70	400(3)	NM 90 - 100 / 14 - 16	5,000 m	771685
Gütermann K AR 753	40	750(3)	NM 100 - 110 / 16 - 18	3,000 m	777918



Gütermann L

for heat resistant seams

Material / Construction 100 % meta-aramide Nomex® /
Continuous filament (L753, L1503) /
Continuous filament, outerbonded (L1501)

Recommended application Closing, decorative & safety seams

Product benefits

- + Short-term high-temperature-resistant at approx. 360°C and permanently at 260°C
- + Flame retardant and self-extinguishing
- + Very high tear resistance
- + Good resistance to chemicals



	No./Tkt.	dtex	Needle	Make-up	Code
Gütermann L 753	40	750(3)	NM 90 - 110 / 14 - 18	400 m	701505
				1,200 m	701491
				4,000 m	709328
Gütermann L 1503	20	1500(3)	NM 120 - 140 / 19 - 22	600 m	701548
				2,000 m	724475
Gütermann L 1501	20	1500(1)	NM 120 - 140 / 19 - 22	600 m	703443
				2,000 m	703427



Antistatik

for antistatic seams

Material / Construction Steel, polyamide 6.6 / Corespun

Recommended application Closing & decorative seams

Product benefits

- + Special thread that can meet the requirements of DIN EN ISO 20345 due to its linear resistance
- + Conductive seams, with low resistance for antistatic effect on protective shoes

	No./Tkt.	dtex	Needle	Make-up	Code
Antistatik 30/4	30	1000 (4)	NM 130 - 150	3,500 m	582093
				7,500 m	582255



Zwibond

for particularly robust seams

Material / Construction 100 % polyamide 6.6 / Continuous filament, innerbonded

Recommended application Closing & decorative seams

Product benefits

- + No untwisting thanks to inner bonding
- + Reliability on automatic sewing machines
- + Very high tear resistance
- + Optimum engineered extension
- + Suitable for 2-needle applications

No./Tkt.	dtex	Needle	Make-up	Code
60	500(3)	NM 90 - 100 / 14 - 16	6,000 m	713074
40	750(3)	NM 90 - 110 / 14 - 18	4,000 m	713066
30	1000(3)	NM 110 - 130 / 18 - 21	3,000 m	713058
20	1500(3)	NM 120 - 140 / 19 - 22	2,000 m	713040
13	2300(3)	NM 140 - 180 / 22 - 24	1,300 m	713031





Amifil

for particularly robust seams

Material / Construction 100 % polyamide 6.6 / Continuous filament

Recommended application Closing & decorative seams

Product benefits

- + Very high tear resistance
- + Reliability on automatic sewing machines
- + Smooth thread surface
- + Optimum engineered extension
- + Durable, robust seams

No./Tkt.	dtex	Needle	Make-up	Code
60	450(3)	NM 90 - 100 / 14 - 16	6,000 m	709131
40	700(3)	NM 90 - 110 / 14 - 18	4,000 m	709121
30	900(3)	NM 110 - 130 / 18 - 21	6,000 m	709111
20	1350(3)	NM 120 - 140 / 19 - 22	2,000 m	709101
13	2100(3)	NM 140 - 180 / 22 - 24	1,300 m	709090

Complementary products by A&E

Perma Spun®

100 % polyester, Spun



No./Tkt.	dtex	Needle	Make-up	Code
120	270(2)	NM 70 - 80 / 10 - 12	5,000 m	705733
75	400(2)	NM 80 - 100 / 12 - 16	5,000 m	705732
50	600(2)	NM 90 - 110 / 14 - 18	5,000 m	705731
30	900(3)	NM 120 - 130 / 19 - 21	5,000 m	705730
13	2100(3)	NM 140 - 180 / 22 - 24	1,300 m	709090

Filan

100 % polyester
Continuous filament



No./Tkt.	dtex	Needle	Make-up	Code
80	300(3)	NM 70 - 90 / 10 - 14	15,000 m	705632
			27,000 m	705630
60	500(3)	NM 90 - 100 / 14 - 16	10,000 m	705642
			20,000 m	705643
40	700(3)	NM 90 - 110 / 14 - 18	4,000 m	705620
			8,000 m	705622
30	900(3)	NM 110 - 130 / 18 - 21	3,000 m	705610
20	1350(3)	NM 120 - 140 / 19 - 22	600 m	705601
			2,000 m	705600

Wildcat Plus®

100 % polyester
Textured multifilament



No./Tkt.	dtex	Needle	Make-up	Code
160	180(1)	NM 65 - 70 / 9 - 10	10,000 m	705752
80	350(2)	NM 70 - 90 / 10 - 14	5,000 m	705751
			10,000 m	705753
40	700(4)	NM 90 - 110 / 14 - 18	5,000 m	705750

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seams
so perfect

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