

THREADS
FOR **SHOES**

Gütermann



It's the stitch that makes the shoe

Shoes come in a wide variety of styles. They must meet high standards in everyday use: they should be comfortable, durable, and able to withstand moisture and dirt.

Gütermann sewing threads have been specially developed to meet the diverse demands of shoe manufacturing. They are suitable for sewing various materials and different manufacturing techniques and designs.





Perfect shoe seams

For manual and industrial shoe production, we know that the same sewing thread is often used for both closing and decorative seams to make handling easier. For this reason, the sewing thread must be up to the task in terms of both appearance and seam strength. Sewing threads from Gütermann combine precisely these properties. Other factors impacting the sewing process include:

- Material
- Sewing thread
- Needle size and point shape
- Stitch density
- Thread tension

Possible combinations

Thread count	Looper or bobbin threads
Tera 80 - tex 35	Tera 80 - tex 35
Tera 60 - tex 50	Tera 80 - tex 35
Tera 40 - tex 75	Tera 60 - tex 50 or Tera 80 - tex 35
Tera 30 - tex 100	Tera 40 - tex 75 or Tera 60 - tex 50
Tera 20 - tex 150	Tera 40 - tex 75 or Tera 30 - tex 100
Tera 10 - tex 290	Tera 20 - tex 150

Ratio of needle and looper thread count

Striking thread counts are often chosen as eye-catching features for decorative seams. However, finer looper or bobbin threads are also used for decorative seams. A balanced thread tension ratio enables these thread combinations to achieve perfect seams with an even seam pattern.

Perfect leather seams

Leather is a natural product. Its unique colors and surface textures make each piece one of a kind. Its specific structural characteristics make it quite challenging to work with. Every needle stitch leaves a visible hole. The seams must be perfect from the very first stitch! Thanks to our premium sewing threads, which are available in a wide range of colors, we can provide the right solution for every type of leather.



**Robust, beautiful and flexible**

For elegant, shiny seams, we recommend the Tera continuous-filament thread, which is exceptionally even.

Its smooth surface reflects light evenly and beautifully. Due to its nubby texture, suede requires seams that have a textile character. Mara is ideal for this. Micro Core Technology® prevents fibre abrasion during sewing. Our 100% polyester products Mara and Tera always produce an even and perfect seam appearance in sewing processes with varying sewing speeds.

In addition to their use for subtle closing seams and durable bar tacks, our sewing threads are also suitable for creating visually striking and durable decorative seams. For these, we recommend using thread thicknesses such as Tera 40, 30, 20 and 10, as well as Mara 50 and 30.



Strong and beautiful

As sewing thread experts, we focus on the functionality and appearance of seams. We offer sewing threads with various constructions. Our products are durable, machine-compatible, and ideal for high sewing speeds.

Eye-catching seams are often used as a unique design element. This effect is achieved by using coarser sewing threads with a round cross-section.

Tips for sewing

Sewing with coarse, three-ply sewing threads on two-needle, double-stitch sewing machines is a challenging process. The machine design leads to varying stress on the two needle threads.

Adjust thread tension and sewing speed to the fabric and use appropriate sewing needles.

Needle sizes

Suitable sewing needles are essential for high-quality seams. First, the shaft diameter and point shape of the needle must be suitable for the sewing material. These factors determine the appropriate thread count for the needle's eye. This interplay is especially important when working with leather as the puncture holes remain permanently visible.



Using sewing needles with a diameter that is too large for the material can create unnecessarily large holes. This can weaken the seam or cause it to tear. A needle that is too small can cause the thread to slip or break.

Recommended ratio of thread count to needle size

Thread count	<u>No.</u> Tkt.	Needle size
Tera 80 - tex 35	80	NM 70-90/10-14
Tera 60 - tex 50	60	NM 90-100/14-16
Tera 40 - tex 75	40	NM 90-110/14-18
Tera 30 - tex 100	30	NM 110-130/18-21
Tera 20 - tex 150	20	NM 120-140/19-22
Tera 10 - tex 290	10	NM 160-230/23-26



Cutting-point needles

Sewing needles with cutting points are generally used for different types of leather. Unlike needles with displacement points, they result in an attractive seam appearance.

In leatherworking, both the diameter of the sewing needle's shaft and the shape of its point play an important role. Cutting points come in various shapes, resulting in a durable seam with an even stitch pattern.

For decorative seams using thick threads, corded point shapes are helpful. The sewing thread runs over a groove in the eye area. This prevents missed stitches and thread damage because the sewing thread is sewn more gently. The result is even seams with a clean stitch pattern, especially with thicker thread counts and stiff leathers. Different types of corded sewing needles can be used to achieve different looks.

S (NCR):

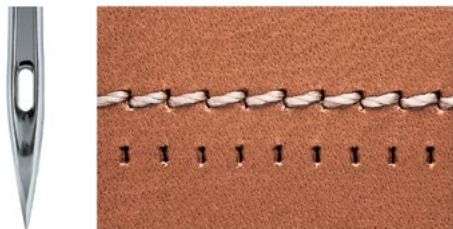
Needle tip shape for a visually attractive seam thanks to the straight thread position. Especially for coarse thread counts.

**LL (TW):**

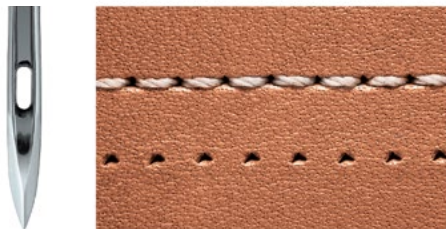
Needle tip shape for a straight seam pattern.

**P (NW):**

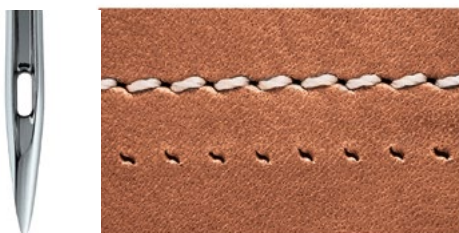
Needle tip shape for finer thread counts.

**D (TRI):**

Needle tip shape with triple-edge cut for medium to long stitch spacings..

**LR (RTW):**

Needle tip shape for decorative stitching seams that have a slight tilt to the left.

**SD1 (Tritip):**

Round-tip needle with polished triangular design for soft leathers and multi-directional application.



Bilder mit freundlicher Genehmigung der Groz-Beckert KG.

Number of stitches and thread tension

Stitch count (Stitches/cm or st/Inch)

The stitch count affects seam strength, stretch, and thread consumption. Increasing the stitch density by 50%, for example, results in a 50% increase in seam strength. The total load from the forces acting on the seam is distributed evenly across the increased stitch count. This reduces stress on the needle holes. Depending on the thickness of the material, thread consumption increases by only 10% to 20%.

With particularly coarse thread counts – e.g., No./Tkt. 10 or No./Tkt. 20 – higher stitch counts can adversely affect the seam's appearance. The stitch bridges do not have sufficient space between stitch holes to form an even stitch pattern without visible thread distortions. Therefore, such coarse thread weights should be sewn with a stitch count of 2 to 2.5 stitches per centimeter.

Thread tension (cN)

Unnecessarily high thread tension ratios lead to uneven seam appearance and place additional strain on the sewing thread. The following problems may occur.

Thread distortions of the twisted sewing thread

Twist movement with bunching of the individual yarns until the thread breaks

Deflection of the sewing needle – especially with coarse thread counts

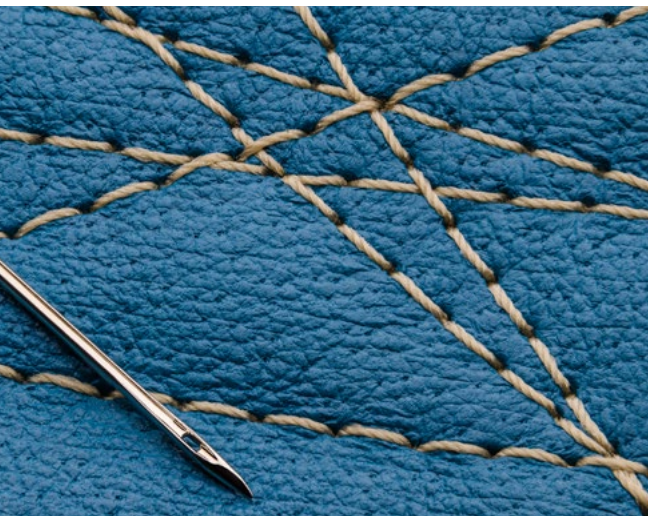
Damage to the sewing material

Tearing of the leather in the puncture area due to increased thread tension – particularly with thinner leathers

Reduction in seam strength due to insufficient stitch formation

Our Tera and Mara products have good stretch properties. Both can be easily processed with low thread tension to create perfect and durable seams.

For processing thin and softer leathers (e.g. Boxcalf), the distance from the top roller to the needle tip must be observed, especially for fine needle sizes **NM 60 or NM 70**. This should be at least 2 mm to 2.5 mm to avoid possible needle breakage.



By your side every step of the way

For every step of the process, from sewing thin „broken edges“ to multi-layer instep seams that connect the upper to the last and insole, we have the perfect sewing thread.



Tera 60 | 40 | 20

Continuous filament made of 100% polyester for subtle to distinctive closing and decorative seams, as well as bartacks.

Mara 70 | 50 | 30

Sewing thread made of 100% polyester for subtle to distinctive closing and decorative seams, as well as bartacks.

Anebraid® L 1,0 lubricated

Braided sewing thread made of 100% polyester for effective and distinctive decorative seams.

The choice of thread thickness depends on the desired design, intended use, and nature of the leather. Several characteristics play an important role. The key factors are:

Leather thickness (mm)

Feel of the leather (softness or hardness)

Surface of the leather, such as smooth, grained, hairy, coated or braided.

Women's shoes

Softer and thinner leathers are used for women's shoes. Finer thread counts are used for visible closings and decorative seams (e.g., quarter and instep seams). Whether it's ballerina shoes with elastic, slingback pumps with buckle closures, or ankle boots with zippers, Mara and Tera are the right sewing threads for all seam locations.

Even using finer needle sizes (e.g., NM 60-70/8-9) ensures even, durable seams that do not cause discomfort.

Tera 80 | 60 | 40

Continuous filament made of 100% polyester for subtle to distinctive closing and decorative seams, as well as bartacks.

Mara 70 | 50 | 30

Sewing thread made of 100% polyester for particularly subtle to more striking closing and decorative seams and bartacks.

Threads for challenging applications

Sports and outdoor shoes require robust, mechanically durable seams, as they often involve sewing leather and synthetic materials together. The ideal seam is flexible and soft where the wearer's feet experience the most stress and stronger in other areas to protect the shoe. Fortunately, we have the right sewing thread for every need.



In addition to the Tera polyester sewing thread, our product range includes Zwibond and Amifil polyamide 6.6 sewing threads. Thanks to their internal bonding, these threads are particularly well-suited to high-stress seams, automatic sewing machines, multi-directional sewing and two-needle sewing machines. They are available in a range of thicknesses to ensure the perfect seam strength for every application.

Amfil 40 | 30 | 20 | 13

Continuous filament made of 100% polyamide 6.6. For closing and decorative seams, bartacks and for sports and work safety shoes.

Zwibond 40 | 30 | 20 | 13

Inner-bonded continuous filament made of 100% polyamide 6.6. For closing and decorative seams and bartacks subject to extreme strain, and for sports and work shoes.

Tera 40 | 30 | 20 | 10

Continuous filament made of 100% polyester.

Anebraid® L 1,0

Braided multi-filament made of 100% polyester for effective and striking decorative seams thanks to the braided thread construction.

Repel finish for water-repellent sewing threads

Water-repellent materials are often used for the upper of sports and outdoor footwear. Using water-repellent sewing threads can improve the waterproofing of seams. Nearly all of our products are also available with an additional hydrophobic finish.

When processing water-repellent sewing threads, we recommend using the smallest possible needle sizes in combination with fine threads. This keeps the holes as small as possible. Positioning the thread loop on the underside of the fabric covers the stitch holes with thread material, reducing the risk of water penetration.



Sewing threads for the highest standards of protection and safety

Safety and work shoes are essential for workplace safety and productivity. They protect against injuries, provide stability, improve ergonomics, and ensure comfort. With our high-quality sewing threads, you're on the safe side.



Safety and comfort

In demanding work environments, work shoes must be safe, functional, and durable due to the high level of stress they endure – and this also applies to the seams. The seams are subjected to extreme mechanical stress and must therefore be robust. Especially where leather and synthetic materials are joined, the sewing threads must be flexible yet highly durable.

Gütermann's high-performance sewing threads create strong bonds that withstand extreme conditions. Our proven polyester and high-quality polyamide 6.6 threads are characterized by high tensile strength and excellent abrasion resistance. They can be tailored to your specific needs.



Tera 60 | 40 | 30

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.

Filan 60 | 40 | 30

Continuous filament made of 100% polyester for the complete manufacturing process of work shoes.

Amifil 60 | 40 | 30 | 20 | 13

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 60 | 40 | 30 | 20 | 13

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

Sewing thread made of 100% meta-aramid (Nomex®) for heat-resistant and flame-retardant functional and 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.

Water-repellent seams

Safety shoes must reliably protect against moisture. Seam waterproofing is crucial because even water-repellent upper materials can become weak points if the seams are unprotected.

A water-repellent REPEL finish creates the optimal foundation for watertight seams. This significantly reduces water penetration through the seams. This improves functionality and ensures your feet stay dry, even in adverse weather conditions.

We recommend using fine needles and thread to minimize puncture holes and maximize seam tightness. Strategically positioning the thread interlacing on the underside of the material also achieves better coverage of the puncture points.

Exceptional shoes made with carefully selected materials

The perfect thread for every seam, offering exceptional durability and a beautiful finish. It is available in a wide range of weights and colors.

Men's shoes

	Processing	Product	No./Tkt.	tex
Classic	Elegant	Tera 60	60	50
	Distinctive seam look	Tera 40	40	75
	Clearly visible seam look	Tera 20	20	150
	Alternative look	Mara 70	70	40
		Mara 50	50	60
		Mara 30	30	100
	Striking decorative seam	Anebraid® L 1,0	6	490

L = lubricated, for machine sewing

Women's shoes

	Processing	Product	No./Tkt.	tex
Classic	Subtle decorative seam	Tera 80	80	35
Sporty	Alternative	Tera 60	60	50
		Mara 70	70	40
		Mara 50	50	60
		Mara 30	30	100
	Striking decorative seam	Anebraid® L 1,0	6	490

Boots

	Processing	Product	No./Tkt.	tex
Classic	Overall processing	Tera 60	60	50
	Distinctive seam look	Tera 40	40	75
	Alternative look	Mara 50	50	60
		Mara 30	30	100
	Striking decorative seam	Anebraid® L 1,0	6	490

Sports shoes

	Processing	Product	No./Tkt.	tex
Classic	For optimal seam strength depending on the desired decorative effect	Zwibond 40	40	75
		Zwibond 30	30	100
		Zwibond 20	20	150
		Zwibond 13	13	230
		Amifil 40	40	70
		Amifil 30	30	90
		Amifil 20	20	135
		Amifil 13	13	210
	Striking decorative seam	Anebraid® L 1,0	6	490

Outdoor/Hiking Shoes

	Processing	Product	No./Tkt.	tex
Classic	Overall processing	Tera 40	40	75
		Tera 30	30	100
	Distinctive seam look	Tera 20	20	150
	Coarse decorative thread	Tera 10	10	290
	For optimal seam strength depending on the desired decorative effect	Zwibond 40	40	75
		Zwibond 30	30	100
		Zwibond 20	20	150
		Zwibond 13	13	230
		Amifil 40	40	70
		Amifil 30	30	90
		Amifil 20	20	135
		Amifil 13	13	210
	Striking decorative seam	Anebraid® L 1,0	6	490

L = lubricated, for machine sewing

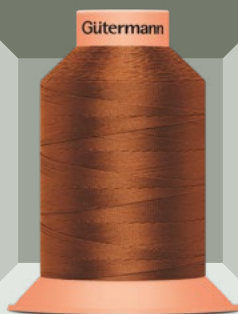
Work/Safety Shoes

	Processing	Product	No./Tkt.	tex
Standard application	Overall processing	Tera 30	30	100
		Tera 40	40	75
		Tera 60	60	50
		Filan 30	30	90
		Filan 40	40	70
		Filan 60	60	50
		Amifil 40	40	70
		Amifil 30	30	90
		Amifil 20	20	135
		Amifil 13	13	210
		Zwibond 40	40	75
		Zwibond 30	30	100
		Zwibond 20	20	150
		Zwibond 13	13	230
	Heat resistance, flame-retardant	Gütermann L 753	40	75
		Gütermann L 1503	20	150
	Antistatic	Antistatik 30/4	30	100

Water-repellent finish on request.

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seams
so perfect

Elevate Textiles™