

# Shoes and accessories



# NATURAL AND TIMELESS

The perfect leather seams

As a natural product, leather requires careful handling and workmanship, as each needle puncture permanently perforates the leather. The extensive range of high-quality sewing threads offers the ideal sewing thread for all different leather surfaces – from smooth, grained to hairy, high-gloss polished, coated or even braided.





For seams with an elegant sheen, we recommend the very even continuous filament Tera, which reflects light evenly and beautifully thanks to its smooth thread surface.

Suede, on the other hand, requires seams with textile properties due to its hairy surface texture. Mara is suitable for this. Due to its unique Micro Core Technology®, Mara does not create any fibre fly when sewing. Even when sewing at different sewing speeds, our 100% polyester products Mara and Tera always create an even and perfect seam pattern.

**Robust, beautiful and flexible:**

Our sewing threads aren't just ideal for subtle closing seams and durable bartacks. Coarser thread counts, such as Mara 70 | 50 | 30, also create visually striking and robust decorative seams. The Mara range has the ideal sewing thread for all types of seams for leather processing.

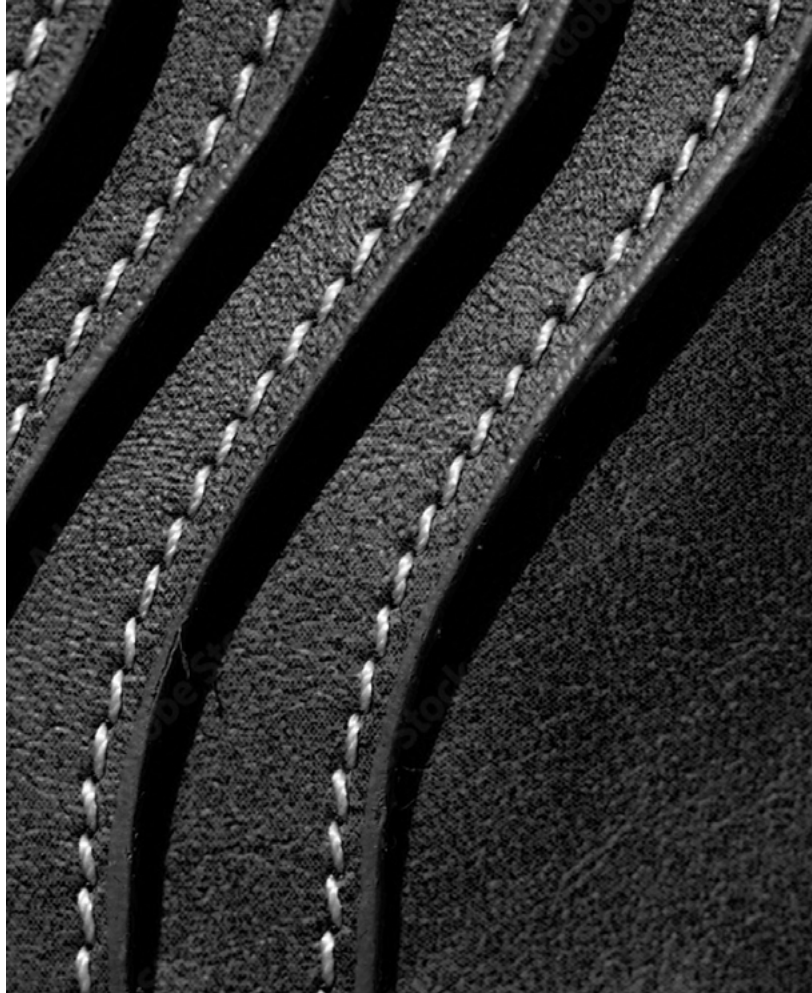


# SECURE HOLD

Beautiful appearance

As sewing thread experts, we take both the functionality and the appearance of the seam into account. The range includes sewing threads with different thread constructions. That's why our durable products are suitable for use on automatic sewing machines and at high sewing speeds.





Eye-catching seams are often used as a special design element. In particular, these are achieved with coarser sewing threads with a round thread cross-section.

TIPS FOR WORKING WITH THE THREAD:

Sewing coarse 3-thread sewing threads with 2-needle double lockstitch machines is a real challenge. The mechanical design places different stresses on the two needle threads. It is advisable to adapt the thread tension ratio and sewing speed individually to the sewing material and to select appropriate sewing needles.

**The coarser the thread, the more textured the look.** However, tensile forces and mechanical stress also act on seams with visible decorative stitching. Mara can fulfil these requirements more effectively thanks to Micro Core Technology®. Mara offers excellent abrasion resistance and colour fastness.

# THE RIGHT NEEDLE

## Sewing needle sizes (NM)

Suitable sewing needles are a basic requirement for high-quality seams. First, the needle shaft diameter and point shape must be adapted to the sewing material. This is used to determine the adequate thread count for the eye of the needle. This interplay is particularly important when working with leather, as the puncture holes remain permanently visible.



Using sewing needle diameters that are too large on thin leather materials creates unnecessarily large puncture holes. These can weaken the leather seam or even cause the seam to tear. However, if a needle size that is too small is used for the sewing thread, the thread material may bunch up or even break.

We therefore recommend:

### Ratio of thread count to needle size

Thread count	No./ Tkt.	Recommended needle sizes
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





# ALWAYS ONE STEP AHEAD

with perfect shoe seams

We know only too well that in manual and industrial shoe production, the same sewing thread is often used for closing and decorative seams for easier handling. For this reason, the sewing thread has to be up to the job in terms of both appearance and seam strength. Sewing threads from A&E Gütermann combine precisely these properties. Other factors that impact the sewing process:

- Type, thickness and hardness of the leather
- Thickness and point shape of the sewing needle
- Thread count
- Number of stitches
- Thread tension ratio of needle and looper thread







**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. The advantage here is that the use of the finer bottom thread increases the thread supply and thus reduces seam interruptions.

**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



# PERFECT SHOE SEAMS

## Cutting needle tips

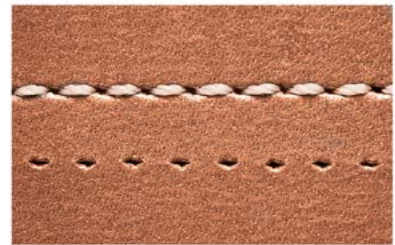
Sewing needles with cutting tips are usually used for different types of leather. In contrast to sewing needles with displacement tips, these result in a particularly attractive seam look.

As such, it's not just the shank diameter of the sewing needle that plays an important role in leather processing, but also the shape of the needle tip. Cutting tips come in various different shapes, which create a durable seam with a uniform seam pattern:

Coded tip shapes are helpful for decorative seams with coarse threads. With these tip shapes, the sewing thread runs over a groove in the needle eye area instead of over the needle eye edge. This helps to avoid skipped stitches or thread damage, as the sewing thread is sewn more gently. Particularly with coarser thread counts and hard leathers, uniform seams are created with a distinct seam pattern. Different coded sewing needles can be used depending on the desired look.

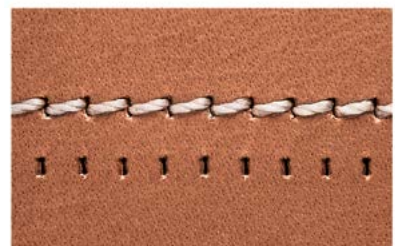
### **S (NCR):**

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



### **P (NW):**

Needle tip shape for finer thread counts.





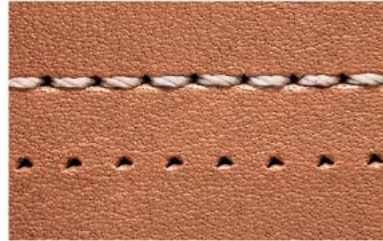
**LR (RTW):**

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



**D (TRI):**

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



**LL (TW):**

Needle tip shape for a straight seam pattern.



**SD1 (Tritip):**

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



# PERFECT SHOE SEAMS

## Number of stitches and thread tension

### **The number of stitches (sts/cm or sts/inch)**

The number of stitches - stitches per 1 cm or even stitches per 1 inch - has an impact on seam strength, seam stretching and thread consumption. For example, an increase in stitch density of 50% also leads to a 50% increase in seam strength. This is because the total load of the occurring forces is evenly distributed over the increased number of stitches, which takes the strain off the pierced holes. Sewing thread consumption, on the other hand, only increases by 10% to 20% depending on the thickness of the material in question.

For particularly coarse thread counts - e.g. No./Tkt. 10 or No./Tkt. 20 - higher stitch numbers can have an unfavourable impact on the seam appearance, since the stitch bridges from the puncture hole to the puncture hole do not have enough space to form an even stitch pattern without visible thread distortion. Such coarse thread counts should therefore be sewn with a stitch count of 2 to 2.5 sts/cm.





### **The thread tension (c/N)**

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

**Sewing material damage**

**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



Whether for sewing the thinner “broken edges” or the multi-layered piercing seams, which join the frame, shaft and insole, we have the right sewing thread for every step. We would be happy to advise you on which of our Tera, Mara or Anebraid® L products is best suited to your application.

**Tera 60 | 40 | 20** Sewing threads made of 100% polyester for subtle to distinctive closing and decorative seams, as well as bartacks.

**Mara 70 | 50 | 30** Sewing threads 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 count depends not only on the desired design and intended use, but also on the qualities of the leather. Several characteristics play an important role here. The main ones 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 leather is used for women's shoes. Finer thread counts are therefore used for visible closing and decorative seams (e.g. quarter and staying seams). Whether ballerina flats with elastic, sling pumps with a buckle closure or ankle boots with a zip, Mara and Tera are suitable sewing threads for all seam positions.

Even if finer needle sizes are used (e.g. NM 60-70 / 8-9), even and durable seams can be produced that do not cause discomfort.

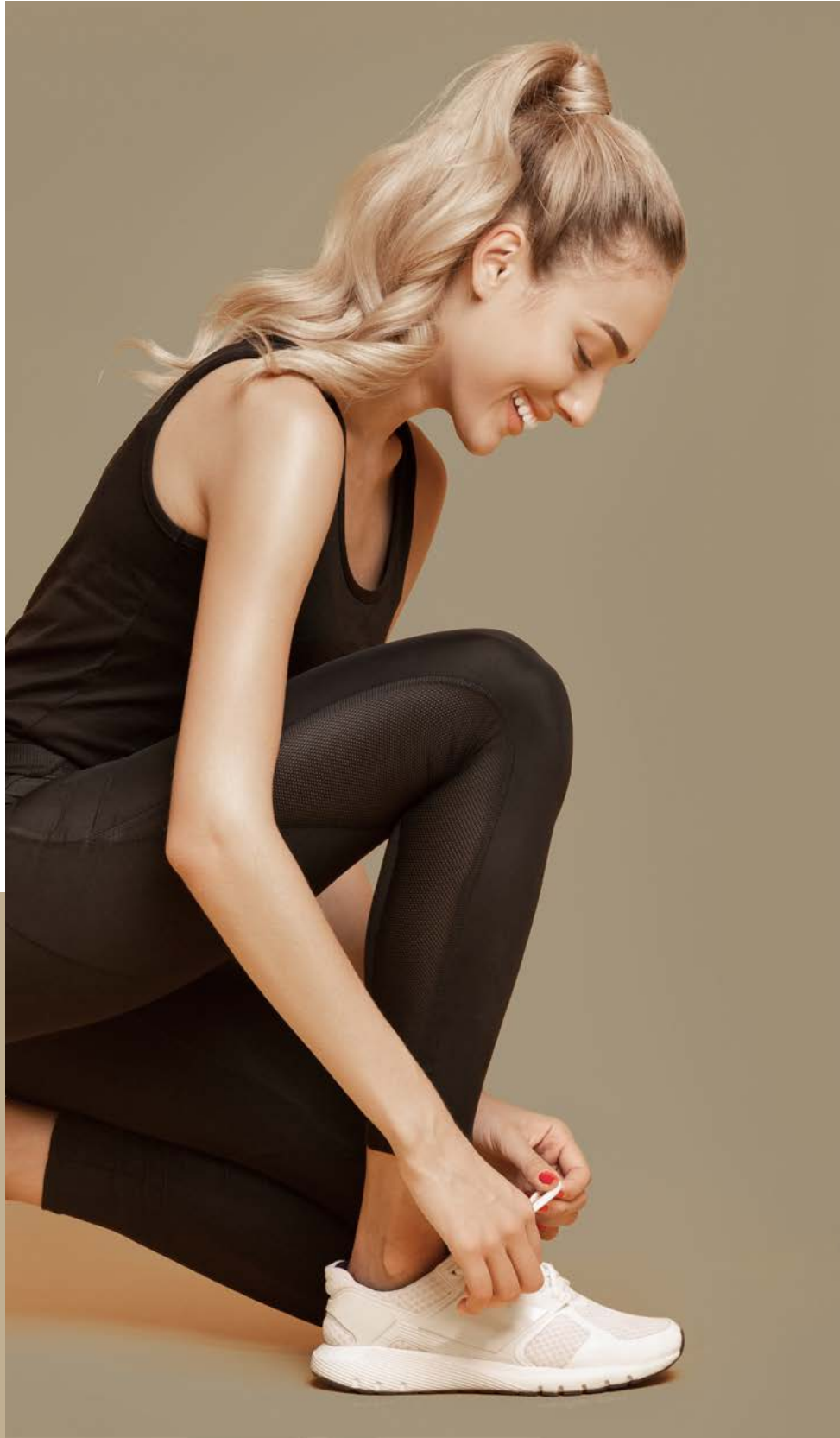
**Tera 80 | 60 | 40** Sewing threads made of 100% polyester for particularly subtle to more striking closing and decorative seams and bartacks.

**Mara 70 | 50 | 30** Sewing threads made of 100% polyester for particularly subtle to more striking closing and decorative seams and bartacks.

# OPTIMAL SEWING THREADS

for major challenges

Sports and outdoor shoes require particularly robust and mechanically strong seams, as leather and synthetic materials are often sewn together here. The ideal seam is smooth and soft where the wearer's feet are put under the most stress, and stronger in other areas to protect the shoe. Luckily, we have the right sewing threads for every requirement.





In addition to the Tera polyester sewing thread, our range also includes Zwibond and Amifil, both made of polyamide 6.6. Thanks to its inner bonding, Zwibond is particularly suitable for creating extremely resilient seams and using with two-needle sewing machines. Our sewing threads are available in several thread counts, offering the perfect seam strength for every application.

**Amfil 40 | 30 | 20 | 13** Sewing thread (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** Sewing thread (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 safety shoes.

**Tera 40 | 30 | 20 | 10** Sewing thread (continuous filament) made of 100% polyester.

**Anebraid® L 1.0** Sewing thread made of 100% polyester for effective and striking decorative seams thanks to the braided thread construction.

### **Our WA formula for water-repellent sewing threads**

Materials with water-repellent finishes are often used for the upper of footwear for sport and outdoor use. Using water-repellent sewing threads can have a positive effect on the seam tightness. Almost all of our products are also available with an additional hydrophobic formula.

When processing water-repellent sewing threads, we recommend using the smallest possible sewing needle sizes and corresponding finer needle threads. This keeps the puncture holes as small as possible. By positioning the thread interlacing on the underside of the sewing material, the puncture holes can also be covered with thread material, thereby reducing potential water penetration.



# AT A GLANCE

## Our product recommendations for you

A&E Gütermann offers you the perfect sewing thread for every seam position With the highest durability and an outstanding appearance. With consistently high quality and in a wide range of colours.

### MEN'S SHOES

	processing	A&E Gütermann solution		
		Product	No./Tkt.	tex
<b>Classic</b>	Elegant	<b>Tera 60</b>	60	50
	Distinctive seam look	<b>Tera 40</b>	40	75
	Clearly visible seam look	<b>Tera 20</b>	20	150
	Alternative look	<b>Mara 70</b>	70	40
		<b>Mara 50</b>	50	60
		<b>Mara 30</b>	30	100
	Striking decorative seam using braided sewing thread	<b>Anebraid® L 0.8</b>	8	370
		<b>Anebraid® L 1.0</b>	6	490
		<b>Anebraid® L 1.2</b>	4	800
		<b>Anebraid® L 1.4*</b>	3	860

L = lubricated, for machine sewing  
\* available upon customer request

### WOMEN'S SHOES

	processing	A&E Gütermann solution		
		Product	No./Tkt.	tex
<b>Classic</b>	Subtle decorative seam	<b>Tera 80</b>	80	35
<b>Sporty</b>	Alternative	<b>Tera 60</b>	60	50
	Alternative look	<b>Mara 70</b>	70	40
		<b>Mara 50</b>	50	60
		<b>Mara 30</b>	30	100
	Striking decorative seam using braided sewing thread	<b>Anebraid® L 1.0</b>	6	490

### BOOTS

	processing	A&E Gütermann solution		
		Product	No./Tkt.	tex
<b>Classic</b>	Overall processing	<b>Tera 60</b>	60	50
	Distinctive seam look	<b>Tera 40</b>	40	75
	Alternative look	<b>Mara 70</b>	70	40
		<b>Mara 50</b>	50	60
		<b>Mara 30</b>	30	100
		Striking decorative seam using braided sewing thread	<b>Anebraid® L 1.0</b>	6

## SPORTS SHOES

	processing	A&E Gütermann solution		
		Product	No./Tkt.	tex
<b>Classic</b>	For optimal seam strength depending on the desired decorative effect	<b>Zwibond 40</b>	40	75
		<b>Zwibond 30</b>	30	100
		<b>Zwibond 20</b>	20	150
		<b>Zwibond 13</b>	13	230
		<b>Amifil 40*</b>	40	70
		<b>Amifil 30*</b>	30	90
		<b>Amifil 20*</b>	20	135
		<b>Amifil 13*</b>	13	210
	Striking decorative seam using braided sewing thread	<b>Anebraid® L 1.0</b>	6	490

\* available upon customer request

## WALKING SHOES

	processing	A&E Gütermann solution		
		Product	No./Tkt.	tex
<b>Classic</b>	Overall processing	<b>Tera 40</b>	40	75
		<b>Tera 30</b>	30	100
	Distinctive seam look	<b>Tera 20</b>	20	150
	Coarse decorative thread	<b>Tera 10</b>	10	290
	For optimal seam strength depending on the desired decorative effect	<b>Zwibond 40</b>	40	75
		<b>Zwibond 30</b>	30	100
		<b>Zwibond 20</b>	20	150
		<b>Zwibond 13</b>	13	230
		<b>Amifil 40*</b>	40	70
		<b>Amifil 30*</b>	30	90
		<b>Amifil 20*</b>	20	135
	<b>Amifil 13*</b>	13	210	
	Striking decorative seam using braided sewing thread	<b>Anebraid® L 1.0</b>	6	490

L = lubricated, for machine sewing

\* available upon customer request

Upon customer request, A&E Gütermann products can be ordered with water-repellent protective finish.

**Please contact us for more information.**

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