



## When selecting the most suitable embroidery threads and embroidery materials, the following is important:

- Which products do you want to embroider?
- What will the embroidered items be used for?

## Which thread should I use? And why?

The success of embroidery is partly down to the beautiful natural shine of the embroidery thread. The CLASSIC viscose embroidery thread has these properties. It can be used universally, making it the clear number one.

If the embroidered item is to be subjected to industrial washing or bleaching processes, the POLYNEON polyester thread is recommended, as it is chlorine-resistant. This thread also has a beautiful shine, but is not comparable with viscose.

Experience shows that the thread quality chosen for use is determined by the demands made of the embroidered item of clothing later. With finished textiles, it is helpful to refer to the sewn-in care labels.

## What does the number after the product name mean?

The number after the product name, such as "CLASSIC No. 40", gives information on the thread weight and thickness.

The standard thread is No. 40. For embroidery threads, a smaller number means a thicker thread and a larger number a finer thread. No.60 is therefore finer than No.40 weight thread.



## How many thread colours do I need at the beginning?

A large number of embroidery colours is offered in both thread types. It is advisable to concentrate on a limited number of standard colours for bulk purchases to start with. However, a full range of colours in a smaller make-up is a good idea so you have all colours in the relevant quality for sampling processes.



## Which make up is appropriate?



Standard weight CLASSIC No. 40 and POLYNEON No.40 are available as spools and cones, i.e. 1,000 or 5,000 metres of turnout. It is a good idea to work with cones for basic colours and with spools for colours you use less often. In order to minimise assembly times, you should try to

reserve a fixed position on the machine for colours such as black and white.

## How many stitches can be embroidered with a spool or cone?

Using standard thread weight No. 40 and a stitch length of 4mm, around 200,000 stitches can be embroidered with 1,000m. With 5,000m cones, 1,000,000 stitches can be embroidered.

As a rule of thumb the calculation of thread consumption per 1,000 stitches is: upper threads approximately 5m, underthreads approx. 3-3.5m.

## Should I use another embroidery thread weight alongside the No. 40 embroidery thread to begin with? If so, why?

Embroidered lettering is a recurring task. The sizes required, however, are often at the limit of what standard No. 40 can do. It is therefore advisable to also use basic colours in the finer No. 60 thread from the beginning.

No. 60 embroidery thread can be used to create block lettering with a letter height of 3mm. Lettering with a letter height of just 6-7mm is more difficult to read when standard thread No. 40 is used.

To minimise assembly times, you can also allocate embroidery thread No. 60 to a set needle position on the machine.

Because you use a finer needle to embroider with thread No. 60, a needle aligned for No. 60 embroidery thread should always be mounted in that position.

**Recommended needles:** No. 40 thread = 65 - 75 needle

No. 60 thread = 65 needle



## What do I need to be aware of when using different thread qualities and weights?

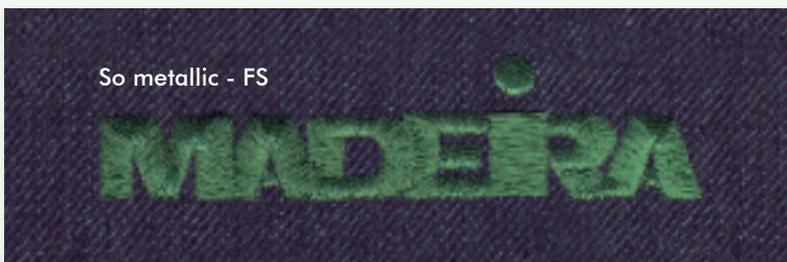
Each thread quality needs designs which are correctly programmed for them.

The needle used also needs to be adjusted to the thread in order to achieve the best possible result.

## More options for designing the embroidery sample with the thread selection

One interesting thread variant is the matt polyester thread Frosted Matt. This can improve the legibility of smaller lettering significantly, while the matt optic gives it a new look.

If you like metallic effects, try adding the classic colours gold and silver from the FS range to your portfolio. For starters, standard thread FS No. 40 is recommended.



## Why keep embroidered work?

Once you have gained a little experience, it's worth trying out other thread variants and strengths step by step.

It really is helpful to keep all your own stitched embroideries, even if you are only experimenting for your own use. You can use them to show a customer where the limits of possibility lie or how slightly different optical effects can be achieved. This may be through mixing a range of threads or combining different embroidery types.

These embroidery samples are important and can help you to discuss details better when talking through an individual embroidery order with a customer. The sample embroidery will enable the customer to imagine the result more easily.

## Which underthread and why?

Madeira's pre-wound underthread bobbins are ideal. These bobbins have a very even thread tension, are easy to use and always to hand.

Pre-wound bobbins/ROYAL saves time, since most bobbin winders mounted on the machine only run during the embroidery process, you have to keep an eye on your supply of underthread spools.



## Why do I need backings and films?

Backing and/or special embroidery films are vital components for good quality embroidery. They stabilise the textile area ready to be embroidered.

Since there is such a large variety of textiles in different thicknesses and materials, there is also a large variety of different backings. If possible, you should only work with a single layer of backing.

## Which are the must-have variants in the huge backing and film range?

There is not just a single standard backing. As a starting point, MADEIRA recommends the following from the E-ZEE embroidery backing and film range:

- A tear away backing in weight 50g/cm<sup>2</sup> and/or 75g/cm<sup>2</sup>: CMX 50, CMX 75. These are the backings for a large number of applications.
- WEB or WEBLON are a good choice for embroidery on t-shirts and polo shirts with writing. These are cut away backings whose transparent structure and fineness ensure they do not appear bulky. At the same time, they have a very stable form and give the embroidery good stability even after many washes.
- The Stick On self-adhesive backing should always be on stand-by for products which are difficult or impossible to frame. Stick On is also recommended for fabrics susceptible to marking, as a frame would leave an imprint.
- Squares Caps is a stable backing ideal for caps. Made from 100 % polyester. The cut-outs in size 10 cm x 30 cm are tailored especially for embroidering caps. The backing can be cut or torn away.



- Water-soluble film AVALON is used for textiles with loops or pile. It prevents the embroidery thread from sinking in between the mesh

or gauze. AVALON film can be laid on loosely or clamped in. AVALON is also highly recommended for embroidery on shirts and polo shirts.

Those are the most important basics. Please don't forget the embroidery needles either. If you do a lot of embroidery on shirts and polo shirts, a slightly rounded embroidery needle is preferable.

## **Why choose Madeira as a supplier?**

MADEIRA has been producing embroidery thread since 1919 and its extensive product range has included both standard qualities and effect threads from the very beginning. MADEIRA is active throughout the world, drawing inspiration from all over the world and putting it into practice in embroidery themes.

The core range is supplemented with a very extensive product range of embroidery accessories, such as needles, backings and films. A new embroidery business just starting up can therefore make full use of the benefits of having just a single supply source. We can also provide you with support, since we are experts not only in threads, but also in add-on products and techniques.

Our goal is to make sure you are secure from the beginning, that you only start on things that are absolutely necessary and that we can grow together.

We hope that we have given you an understanding of the most important basic embroidery 'rules' and hope to be your contact for embroidery threads and accessories in the future.

**Madeira, we're here for you!**

This brochure includes just part of our extensive product range. Here is a brief overview.

**MADEIRA, your producer of premium effect threads for embroidery, decorative seams, quilting and more. Huge optical and tactile variety:**

**CLASSIC** viscose with natural shine in 4 thread weights

**POLYNEON** robust polyester in 2 thread weights

**FROSTED MATT** matt polyester

**BURMILANA** for woolly effects

**LUNA** glow-in-the-dark effect thread

**FS** metallised effect threads in 10 thread weights

**SUPERTWIST** metallic glitter in 2 thread weights

**X.tra** high sheen and super soft

**FIRE FIGHTER** flame and heat resistant

**BURMILON** polyester under threads in 2 thread weights

**ROYAL** pre-spoiled polyester under thread

**E-ZEE** backings and films

**You can find more information, products and accessories in our product catalogue!**



# The embroidery design process

## From the basics to advanced creative embroidery techniques



### Fill Stitch

This stitch type is also referred to as tatami stitch, complex fill stitch, or ceeding stitch. It is a formation of running stitches assigned a stitch pattern and a stitch length. This stitch type is for filling larger areas, which are too big to use a satin stitch. The filling stitch is also very durable because of its tight surface and the stitches can not be easily pulled or catch on objects while the garment or items are in use. There are many options with the fill stitch. You can change its appearance by assigning a different pattern or by simply changing the length of the stitches. For instance a rhythmic stitch pattern, the stitch in points will repeat, depending on the rhythm number.

In the example below, with rhythm three, the stitch in points will repeat itself every third line, keeping to a 90 degree angle. So for a rhythm four it would repeat every fourth line and so on.



This sample shows the six basic stitch rhythms starting from the left with the rhythm one going up to six.



Chapter 5: Basic stitch types 551 PUNCH - Digitizing for Embroidery Design

The book is full of practical information and important tips about how to create good quality designs for industrial embroidery machines. Regardless of punching skill level and for anyone just interested in learning about the process of embroidery design, this book is a valuable source of inspiration and technical advice.

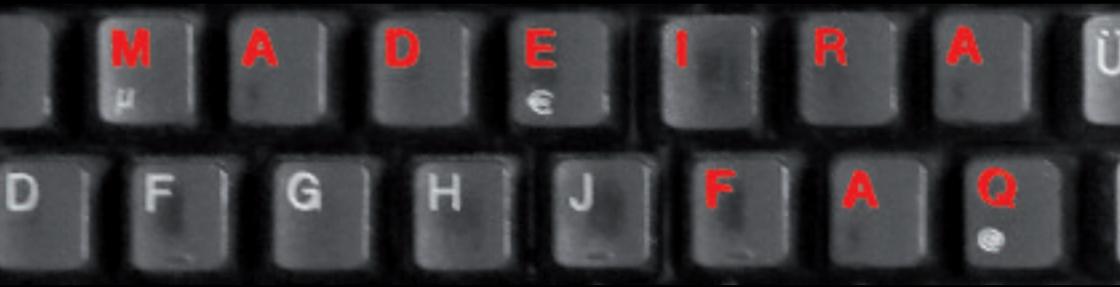
Bonnie Nielsen is an internationally known embroidery designer with more than 25 years of experience in the embroidery industry. She is recognized worldwide for her creative punching skills and is well known for her technical embroidery digitizing articles.

**Bonnie Nielsen**  
"PUNCH - Digitizing for Embroidery Design"

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**Notes:**



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