

## Different thread counts – different requirements

Due to the different thread counts, the stitch density needs to be adjusted while digitising. Also, it might be that on the embroidery machine different needle sizes have to be used.

The following overview shows which stitch density and which needle sizes are suitable for which embroidery thread. Only the right combination of both stitch density and needle size will lead to a satisfactory embroidery result.

Thread type	Satin stitch per cm Back stitch Stitch lines per cm	Density based on 1/10 mm	Density base on 1mm	Needle size
Classic 60	57	3.5	0.35	60/8 - 65/9
Classic 40	51	4.0	0.40	65/9 - 75/11
Classic 30	41	5.0	0.50	75/11
Classic 12	25	8.0	0.80	100/16
Polyneon 75	20	2.0	0.20	60/8
Polyneon 60	57	3.5	0.35	60/8 - 65/9
Polyneon 40 / FR	51	4.0	0.40	60/8 - 75/11
FS No. 50	57	3.5	0.35	65/9 - 75/11
FS No. 45	51	4.0	0.40	80/12 - 90/14
FS No. 40	51	4.0	0.40	65/9 - 75/11
FS No. 35	48	4.5	0.45	80/12 - 90/14
FS No. 30	41	5.0	0.50	80/12 - 90/14
FS No. 20	27	8.0	0.80	100/16
FS No. 15	23	9.0	0.90	100/16
FS No. 12	23	9.0	0.90	100/16 - 110/18
Supertwist 30	30	6.0	0.60	80/12 - 90/14
Supertwist 12	25	8.0	0.80	100/16
Burmilana 12/CO	23	9.0	0.90	100/16
X.trä 30	41	5.0	0.50	80/12 - 90/14
Frosted Matt 40	51	3.0 or 4.0	0.30 or 0.40	60/8 - 75/11
Luna 40	51	4.0 or 5.0	0.40 or 0.50	75/11 - 80/12
Fire Fighter 40	51	4.0	0.40	75/11 - 80/12
Monolon	66	3.5	0.35	65/9

All a.m. tips are only to be considered as rough guidelines and may vary depending on the fabric to be used and on the effect to achieve.

### Guidelines for Underthread use:

For standard length stitches the general rule for underthread requirement is around 3 m per 1000 stitches. Upper thread: You can expect approximately 5 m per 1000 stitches.

### Correct thread tension:

A perfectly tensioned embroidery with standard length stitches should have around one third of the underthread visible on the stitches underneath!