

# STITCH DENSITY

Due to the different thread weights, the stitch density needs to be adjusted while digitizing.

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	STITCH DENSITY based on 1/10 mm	STITCH DENSITY based on 1 mm	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	94	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
CR 20	27	7.0 - 8.0	0.70 - 0.80	90/14, San®8 FFG 80/12
CR 40	54	3.5 - 4.0	0.35 - 0.40	65/9, 70/10, 75/11
FS 50	57	3.5	0.35	65/9 - 75/11
FS 40	51	4.0	0.40	65/9 - 75/11
FS 30	41	5.0	0.50	80/12 - 90/14
FS 20	27	8.0	0.80	100/16
FS 15	23	9.0	0.90	100/16
FS 12	23	9.0	0.90	100/16 - 110/18
SUPERWIST 30	30	6.0	0.60	80/12 - 90/14
BURMILANA 12 / CO	23	9.0	0.90	100/16
FROSTED MATT 40	51	3.0 or 4.0	0.30 or 0.40	60/8 - 70/10
FROSTED MATT 30	40 - 45	5.0 or 6.0	0.50 or 0.60	70/10 - 80/12
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	60	3.5	0.35	65/9

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

## 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:

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