



Digitizing Density Guide

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

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	STITCH DENSITY based on 1/10 mm	STITCH DENSITY based on 1 mm	NEEDLE SIZE
Sensa Green	3.7	0.37	65/9 - 75/11
Classic 60	3.5	0.35	60/8 - 65/9
Classic 40	4.0	0.40	65/9 - 75/11
Classic 30	5.0	0.50	75/11
Classic 12	8.0	0.80	100/16
Polyneon Green 40	4.0	0.40	60/8 - 75/11
Polyneon 75	2.0	0.20	60/8
Polyneon 60	3.5	0.35	60/8 - 65/9
Polyneon 40 / FR	4.0	0.40	60/8 - 75/11
CR 20	7.0 - 8.0	0.70 - 0.80	90/14, San®8 FFG 80/12
CR 40	3.5 - 4.0	0.35 - 0.40	65/9 - 75/11
FS 50	3.5	0.35	65/9 - 75/11
FS 40	4.0	0.40	65/9 - 75/11
FS 30	5.0	0.50	90/14, San®8 FFG 80/12
FS 20	8.0	0.80	100/16
Supertwist 30	6.0	0.60	90/14, San®8 FFG 80/12
Burmilana 12 / CO	9.0	0.90	100/16
Frosted Matt 40	3.0 - 4.0	0.30 - 0.40	60/8 - 75/11
Frosted Matt 30	5.0 - 6.0	0.50 - 0.60	70/10 - 80/12
Luna	4.0 - 5.0	0.40 - 0.50	75/11 - 80/12
Fire Fighter 40	4.0	0.40	75/11 - 80/12
Reflect	4.5	0.45	75/11 - 90/14

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. Monolon and HC threads are for special and technical usages, therefore such values are not relevant for them.

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 reverse side of the fabric.