

# MADEIRA USA

## STITCH DENSITY GUIDE

Due to the different thread types and thicknesses, the stitch density needs to be adjusted when digitizing. In some cases, different embroidery needles are needed.

The following chart shows the stitch density and the appropriate needle sizes that are suitable for each embroidery thread. Having the proper combination of stitch density and needle sizes is important and 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	51	4.0	0.40	60/8 - 75/11
POLYESTER CR 40		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 45	51	4.0	0.40	80/12 - 90/14
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
SUPERTWIST 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 - 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	60	3.5	0.35	65/9

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

**Guidelines for bottom thread use:** For standard length stitches, the general requirement for bottom thread is around 3 m per 1000 stitches.

**Top 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 bottom thread visible on the stitches underneath!

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