

### 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<br>per cm<br>Back stitch<br>per cm | Density based<br>on 1/10 mm | Dennsity based<br>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      | 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    |
| 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          |
| FS 15            | 23  | 9.0                         | 0.90                     | 100/16          |
| FS 12            | 23  | 9.0                         | 0.90                     | 100/16 - 110/18 |
| 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          | 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!