

World of dymax

dymax



STAPLE SPUN
COTTON

Product Information



www.coats.com

dymax is a 100% cotton thread specifically designed for sewing cotton garments that are to be post dyed.

For untreated 100% cotton fabrics.

dymax S soft cotton thread is produced from high quality long staple cotton and is the ideal choice for sewing untreated 100% cotton garments that are to be post dyed.

For mercerised 100% cotton fabrics.

dymax M mercerised cotton thread is produced from high quality, long staple cotton specially treated under tension to provide greater lustre and higher strength. The mercerising process also gives the thread a high affinity to the dyestuffs used in post dyeing, making it an ideal choice for sewing mercerised 100% cotton garments.



Why post dye garments?

Where similar garment styles need to be produced in a range of fashion colours with short lead times, it is logistically simpler to dye at garment stage (thread, trimmings and fabric together) rather than use dyed fabrics.

What are the limitations of post dyeing?

- Post dyeing is not suited to all fabrics
- Does not always provide the desired final appearance in the garment.
- The sewing conditions required to produce cotton post dyed garments may result in imperfect seams
- There is a high risk of inappropriate thread use
- There can be no guarantees of absolute compatibility between thread and garment even in apparently ideal situations

Which sewing threads to use for post dyed garments?

- Thread should be selected on the basis of the fibre composition of the fabric.

i.e. 100% cotton fabric - 100% cotton threads
100% nylon fabric - 100% nylon threads

- 100% cotton threads are coarse for their strength and have relatively low elongation, therefore they need relatively light sewing tension and high stitch densities.
- The thread finish should be selected to align with the fabric finish.

For unbleached fabrics	-	Unbleached thread
For partially bleached /scoured fabrics	-	Half bleached thread
For fabrics which are bleached white prior to make-up	-	White thread

- Ensure that the thread has no tinting agent

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What about machine settings?

- Sewing speeds should normally be set lower for natural thread products compared to those used for synthetic threads
- Unlike synthetic sewing threads, sewing with 100% cotton threads requires machine sewing elements to be maintained in pristine condition
- Large size needles to accommodate coarser thread may necessitate changes to settings
- Hook, looper and feed timings may need adjustment

General sewing guide

Tkt	Tex	Total Decitex	Ply	Average Strength [†]		Recommended needle size* Singer / Metric
				g	cN	
60	30	300	3	850	830	11-12 / 75-80
50	35	375	3	1050	1030	12-14 / 80-90
40	40	460	3	1260	1235	14-18 / 90-110
30	60	660	3	1950	1910	18-19 / 110-120
24	80	750	3	2100	2060	18-20 / 110-130

[†] Average Strength shown is for mercerised products. Soft products will have approx. 5% lower strength.

* Needle size recommendations are a guide only and ultimately depend on the sewing application.

Physical and chemical properties of cotton thread

- Acids: Sensitive to mineral & organic acids especially if halogenated.
- Alkalis: Swells in Caustic mercerising but is not damaged.
- Organic solvents: Generally unaffected by most organic solvents. Generally unaffected by sodium hypochlorite, sodium perborate and peroxide bleaches under controlled conditions. There is a probability of strength loss if contaminated with iron during bleaching.
- Insects / and micro organisms: (mildew, rot): Resistant to ageing and moth attacks but sensitive to mildew growth
- Moisture regain: Approximately 8%
- Laundering: Good durability. Shrinkage at 100°C typically 1% or less. *Sensitive to temperatures greater than 130°C.*
- Heat: Burns readily, decomposes at 160°C. *Prolonged exposure to sunlight causes yellowing and strength loss.*
- Finishes: The lubricants applied are designed to give a consistent performance at high sewing speeds and a minimum variability between shades.

Coats strongly recommend that sample garments are dyed and finished before proceeding to bulk production as the constituents of the fibre are outside of our control.

**Coats can provide on site technical assistance for sewing post dyed garments.
Please contact your local office.**