




GEM Polyester Embroidery Thread Product Information

Engineered for high quality embroidery, GEM Polyester Embroidery thread is tested & trusted by professionals in the industry. It is safe, easy to use & available in over 400 colours to choose from.

-  **Nominal Count: 120 Denier / 132 Dtex / 40 wt**
-  **Length per Cone: 3,000m or customizable upon request**
-  **Oeko-Tex Standard 100 Class I certified: Article for babies and toddlers**



Benefits of GEM Polyester Embroidery Thread



Produced from best grade raw materials only



Easy to use, compatible with all types of embroidery machines



Ready stock at all times with a selection of over 400 colours



Safe for human use, passing renowned tests & standards



Gives embroidery works noticeably more luster & shine



Highly versatile, usable with all types of fabrics



High colour consistency with minimal colour variation



Engineered for minimal thread breakage & looping



Formaldehyde free & does not contain any AZO dyestuffs



Designed for comfort & quality with no skin irritation



Bleach resistant & does not fade after washing



Usable for high speed embroidery up to 1,200 RPM



Excellent durability with exceptionally long shelf life



Knotless, ensuring minimal embroidery machine stoppage



Quick & dependable service in all major markets

Technical Information

Nominal Count	:	120 Denier / 132 Dtex / No. 24 / 27 Tex
Ply	:	2
Twist per Meter (TPM)	:	550 Z
Knots per Cone	:	Knotless
Embroidery Speeds	:	Up to 1,000 – 1,200 RPM
Strength Average	:	35 cN/Tex, 4 g/Denier (800 cN, 860 g)
Elongation Average	:	30 – 35%
Shrinkage at Boiling	:	< 0.5%
Shrinkage at Heat Setting 180°C	:	< 0.5%
Friction	:	< 80 F/cN, Wav < 30
Stick – Slip	:	< 50 F/cN, Wav < 10

Packaging Information

Yarn Length / Cone	3,000 m	Carton Dimension	56.5 cm x 31 cm x 24 cm
Cone Dimension	6.5 cm x 6.5 cm x 10.5 cm	Carton Gross Weight	13.25 kg
Cone Gross Weight	100 g	Cones/CBM	2,640 cones
Cones / Box	12 cones	Cones/20' Container	79,200 cones
Box Dimension	30 cm x 11 cm x 11 cm	Cones/40' Container	176,880 cones
Box Gross Weight	1.30 kg	Cones/40' HC Container	190,080 cones
Boxes / Carton	10 boxes		

Remarks: Actual packaging information may vary slightly from the above information within tolerable range due to various production factors.

Production Lead Time



GEM Polyester Embroidery Thread (3,000m)



GEM Polyester Embroidery Thread (Custom Colour, Size or OEM)

Quantity / Item	GEM Polyester Embroidery Thread (3,000m)	GEM Polyester Embroidery Thread (Custom Colour, Size or OEM)
< 20,000 Cones	Ready stock	Upon discussion
20,001 – 50,000 Cones	Ready stock – 14 days	Upon discussion
> 50,001 Cones	14 – 21 days	Upon discussion

Remarks: The above production times serve only as an estimation & guideline. Actual production may vary depending on production schedule, order forecast & complexity of special specifications among other factors.

Colour Fastness

Washing	4C, 4S	ISO 105 C06 C25 (60°C)
Rubbing Wet, Dry	4C, 3 – 4S	ISO 105 X12
Water	4C, S	ISO 105 E01
To Perspiration	4C, S	ISO 105 E04
To Light	4C	ISO 105 B02
To Sea Water	4C, S	ISO 105 E02
To Acetone	Yes	ISO 105 X05
To Yellowing	4C	M&S C20B
To Hypochlorite Bleaching	4C, 4C	120 105 N01
To Chlorinated Water	4C	ISO 105 E03
To Ironing	4C	ISO 105 X11
To Dry Cleaning	4C	ISO 105 D01
To Dry Heat Setting	4C, 4S	ISO 105 P01 (150°C)
Control pH	4.5 – 7	AATCC – 81

Care Instructions

Regular Washing

For best results, wash with a mild laundering agent at 60°C

No rubbing, especially for red embroidery threads

Wash off any powder on fabric using cold to moderate temperature water before regular washing

After washing, rinse immediately with cold water to remove any remaining detergent

To avoid cross staining, never leave wet articles piled together

Pretesting is to be conducted if stain removers are to be used

Ironing

Embroidered fabrics should always be ironed on the back

When using a steam iron, set to low temperature

It is recommended to iron embroidery between two layers of cloth

Dry Cleaning

GEM Polyester Embroidery Thread may be dry cleaned with commercial dry cleaning fluids. However, pretesting for suitability is highly recommended

Storage

For best performance, store GEM Polyester Embroidery Thread away from open flames, heat, humidity, sunlight & extreme temperatures. Keep away from children

Frequently Asked Questions

Q Can I use GEM Polyester Embroidery Thread on all types of embroidery machine?

A Yes. GEM Polyester Embroidery Thread is fully compatible with both industrial & home use computer embroidery machines.

Q Can I use GEM Polyester Embroidery Thread on all sorts of fabrics?

A Yes. GEM Polyester Embroidery Thread is highly durable & can be used on all sorts of fabrics. To ensure best performance, we always recommend pretesting before actual usage.

Q How is GEM Polyester Embroidery Thread different from other polyester threads?

A GEM Polyester Embroidery Thread is specially designed for quality & ease of use, making it usable by both professionals & home users. It is also completely safe & free from harmful chemicals, which means it can be used in children's garments.

Q How is GEM Polyester Embroidery Thread different from rayon threads?

A Compared to rayon threads, GEM Polyester Embroidery Thread is significantly stronger & more durable. This means less thread breakage & a much longer shelf life. Unlike rayon threads, GEM Polyester Embroidery Thread is also bleach resistant.

Q What certifications does GEM Polyester Embroidery Thread have?

A GEM Polyester Embroidery Thread complies with the Oeko-Tex Standard 100 Class I certification, which means that it safe for children under the age of 3 & does not contain harmful chemicals. If you require any additional testing or certification, you can always reach out to us at info@gem-thread.com.

Q Is pretesting requested before using GEM Polyester Embroidery Thread?

A GEM Polyester Embroidery Thread is highly compatible with most fabrics & is very easy to use. However, as with any textile material, we strongly recommend you to always pretest before actual usage to avoid any problems that could potentially occur.

Q Do I need to adjust my embroidery machine before using GEM Polyester Embroidery Thread?

A GEM Polyester Embroidery Thread is designed for compatibility with all types of computer embroidery machines which means minimal adjustment is required. However, it is good practice to always adjust both upper & lower thread tension before embroidery. If you have been embroidering with rayon, you may need to increase the thread tension on your machine before using GEM Polyester Embroidery Thread.

Q Are there any special tips to ensure best performance of GEM Polyester Embroidery Thread?

A Always make sure your machine & spare parts are well maintained & always use correct equipment, including appropriate needle sizes for the type of work you are embroidering.

Q Are there instances where GEM Polyester Embroidery Thread cannot be used?

A GEM Polyester Embroidery Thread can work in all normal computer embroidery applications. In extreme applications where the performance threshold of the thread is exceeded, pretesting is highly recommended before actual use.

Q Can I rewind GEM Polyester Embroidery thread into smaller cones?

A Yes. However, due to different winding machines & speeds, we cannot guarantee that your rewound cones can run as smoothly as our 3,000m cones. If it is necessary to rewind, pretesting is highly recommended before actual use.

Q What is the best way to store GEM Polyester Embroidery Thread?

A To maximize shelf life & ensure consistent quality, we highly recommend storing GEM Polyester Embroidery Thread in its box & carton, away from open flames, heat, humidity, sunlight & extreme temperatures. For safety, we recommend keeping out of reach from children.

If you have any other questions or inquiries, feel free to send them to info@gem-thread.com. We will be more than happy to assist you with further information. We thank you for your interest in our products!