

World of Coats sylko FR

COATS
sylko FR



FLAME
RETARDANT
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Product Information



www.coats.com

Coats sylko FR is a trilobal polyester thread specially engineered for tough embroidery applications. It is produced to conform to US Legislation CFR 1615 which requires flame retardant thread to be used in any embroidery that exceeds 2 square inches in non-snug fitting children's sleepwear.

Coats sylko FR has been tested in our laboratories and has proven satisfactory even under difficult flammability conditions. Proper seam construction is an integral part of the testing procedure.

Clearly thread is only one element that impacts on total garment flammability, and the use of a flame retardant thread will not help if the fabric is flammable. Nevertheless it has been shown that use of a standard thread with no flame retardant characteristics can cause the seams of a garment to fail standard flammability tests even when the fabric is flame retardant.

The special L635 finish has been developed by Coats North America to conform to US legislation and is covered by strict audit procedures:

- Any Coats facility manufacturing Coats sylko FR must send a sample to a central location for testing every six months on an ongoing basis
- To ensure the integrity of the finish application process each finishing order for Coats sylko FR must be tested for finish content and composition

Why choose Coats sylko FR?

- Colourfast and bleach resistant
- Resistant to enzyme washes for denim
- Superior durability for rugged end-uses
- Tapered vicone for smooth uptake
- Excellent lustre and abrasion resistance
- Certified Oko-Tex standard 100, Class 1 (for babies)

Technical specifications

Tex #	Total Dtex	Strength (g)	Elongation %	Needle Size* Singer / Metric
27	280	1,200	19 - 26%	11 / 75

*Needle size recommendations are nominal and ultimately depend on the sewing application

Chemical properties:

Mineral acids:	resistant to most mineral acids
Alkalis:	essentially unaffected by weak alkalis but less resistant to stronger alkalis, especially at higher temperatures
Organic solvents:	generally unaffected but soluble in some phenolic compounds
Bleaching:	unaffected
Insects/micro-organisms:	[such as mildew/rot] unaffected
Moisture regain:	0.4%

Fastness Properties: (all Grade 4)

Wash fastness:	ISO 105 C04
Water fastness:	ISO 105 E01
Rub fastness:	ISO 105 X12
Hypochlorite fastness:	ISO 105 N01
Dry cleaning fastness:	ISO 105 D01

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It is common practice in many garment manufacturers to add additional lubricants to the thread or fabric prior to or during sewing. This practice can promote flammability in the finished garment and should be prohibited. Coats applies a carefully formulated lubricant in a controlled amount to the thread, and this will permit the thread to be sewn under normal machine conditions and speeds. We cannot accept any responsibility for the flammability performance of the product if any additional lubricants and finishes are applied during processing.

Both woven and non-woven backing materials used in embroidery may contain components which promote flammability. We recommend that these also be subjected to flammability tests before sewing.

Tests have shown that the specific embroidery pattern can affect the flammability of the surrounding fabric and we recommend that flammability tests should be undertaken when producing garments with large dense patterns in vulnerable areas of a garment.

The sleepwear manufacturer is solely responsible for strict compliance with federal standards and for running the required tests on their garments. Standard CFR 1615 is summarized below. (Copies of the full document can be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.)

Test Method / Summary (CFR 1615)

Fabric:	Interlock FR fabric for Children's sleep wear
Specimen:	3 in. x 10 in. section of fabric
Stitch Type:	Lockstitch machine embroidery, using Coats sylko FR as the needle thread and either Coats astra FR or Coats epic FR
Specimen Preparation:	Prepare 10 specimens, embroider a 1 inch square pattern located 2 inches from the bottom edge of the fabric, lay 5 specimens aside for laundry testing
Testing Equipment:	Vertical Test Cabinet
Laundering:	Specimens are tested before and after 50 washings.
Testing Procedure:	The specimens are placed in specimen holders so that the bottom edge of each specimen is even with the bottom of the specimen holder. Adjust the flame height of the burner to one and half inches. One at a time, the mounted specimens shall be exposed to the flame for 3 seconds.
General Requirements:	Average char length of five specimens shall not exceed 7 inches either before or after laundering. Full specimen burn - no individual specimen shall have a char length of 10 inches.

This thread has been developed to meet the requirements of the CFR 1615 test for flame retardancy in finished apparel. Flame retardancy in textile products depends on a complex interaction of variables, and thread and seam performance is highly dependent on other factors including the type of fabric

which is used. It is the responsibility of the thread users to satisfy themselves that the thread meets their particular fire retardant requirements when sewn into a finished product. Whilst Coats accepts that it is able to confirm that the thread supplied will meet the specification as set out in CFR 1615, when tested using Coats' method for seam evaluation, Coats cannot accept any liability arising from the users own negligence.

One colour. One specification. Worldwide. Coats operates to a global specification for Coats sylko FR with quality audited by one centrally located team.



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