

[Contact Us](#) 800-915-2320

[About Us](#)

[Thread Information](#)

[Login \(Optional\)](#)



Search

Home

Basket

Checkout



Industrial and Fire Retardant Thread

Nylon - Polyester - Kevlar - Bobbins - Monofilament - Polypropylene
Bag Closing - Fire Retardant Sewing, Embroidery and Bobbins - Nomex

Embroidery Thread and Accessories

Robison-Anton Store - Backings and Stabilizers - Half-Price Closeouts
Grab Bags - Save \$0.50 a spool when you buy 10 or more spools

Crafts Thread and Cord

Waxed Thread - Artificial Sinew - Hand Sewing Nylon and Polyester
Polyester-Linen - Bank Line - Bailer Twine

Fire Retardant Sewing Thread Guide

Contents

- [FR Sewing Thread](#)
- [Fire Retardance](#)
- [Thread Size](#)
- [Kevlar or Nomex](#)
- [Children's Garments](#)
- [Specifications](#)

Fire Retardant Thread

- [Sewing Thread](#)
- [Embroidery Thread](#)
- [Bobbins](#)
- [Nomex Thread](#)
- [Kevlar Thread](#)

Free

[FR Sewing Thread Guide - PDF](#)

Fire Retardant Sewing Thread Use fire retardant (FR) *sewing thread for sewing seams and attaching patches* on clothing and gear used by first responders, race car drivers, and others who need protection from fire and heat. It should only be used with fabrics and materials that have the same level of fire retardance.

Our fire retardant thread has a fuzzy, cotton-like texture and a dull finish. They are spun threads made from Kevlar™, Nomex™, or Nomex-like para aramids that are wrapped in a cotton outer layer that can be dyed any color. As a result, they are ideal for sewing seams or attaching emblems, but too dull for embroidering. Use our [Fire Retardant Embroidery Thread](#) for names and logos.

Fire Retardance Our thread is UL® approved and meet these standards NFPA 1975-1999, NFPA 1971-1997, NFPA 1976-1992, and NFPA 1977-1998. More simply put, they do not melt and can withstand temperatures of 700°F (366°C) before they decompose. This compares to a 450°F (218°C) melt point for general purpose threads such as Nylon and Polyester.

Fire retardant is *NOT* fire-proof. These threads will burn when exposed to a 2500°F (1357°C) cigarette lighter. They should not be used with conveyer belts and other gear that operates above 700°F.

Thread Size Use the thickness of the material you are sewing as a guide for selecting thread size:

- Thread diameter increases.
- Thread strength increases.
- Sewing machine requirements increase. TEX 70 is the largest size most home machines can handle. Heavier sizes normally require a commercial machine.
- Needle size increases.
- Stitch visibility increases
- Yards-per-pound decrease.

Kevlar or Nomex Kevlar and Nomex have about the same fire retardant capabilities. But size-for-size spun Kevlar is much stronger than spun Nomex and its para aramid equivalents. In practice, this different is not as important as it might seem. All of the fire retardant threads have enough strength to sew garment seams and attach patches.

The strongest of these threads, TEX 90 Kevlar, has a tensile strength of 19 pounds. This means that it should not be used to attach harnesses or buckles that hold someone's weight or heavy gear. Use filament [Kevlar Thread](#) for these jobs and be sure that the material sewn can hold the weight.

Children's Garments The U.S. and other countries require children's clothing to be made with fire resistant thread that withstands temperatures up to 450°F. There are much less expensive polyester and cotton threads that meet this requirement. Sorry, we do not sell these threads.

Specifications

| Spun Kevlar - Mil Spec AA55195 | | | | Spun Nomex - Mil Spec AA552117A | | | |
|--------------------------------|----------|---------------|--|---------------------------------|----------|---------------|--|
| Tex | Strength | Yards / Pound | | Tex | Strength | Yards / Pound | |
| 35 | 6.4 | 12,500 | | 24 | 1.5 | 16,000 | |
| 50 | 11.2 | 8,000 | | 35 | 2.0 | 12,000 | |
| 70 | 14.2 | 6,000 | | 50 | 3.0 | 8,200 | |
| 90 | 19.3 | 4,800 | | 70 | 4.3 | 6,200 | |
| | | | | 90 | 5.5 | 4,700 | |

More



[Fire Retardant Sewing Thread](#)



[Fire Retardant Embroidery Thread](#)



[Fire Retardant Embroidery Bobbins](#)



[Nomex Thread](#)



[Kevlar Thread](#)

The Thread Exchange
291A Merrimon Avenue Weaverville, NC 28787
800-915-2320

[Contact Us](#)
[Net 30 Terms](#)
[Privacy Policy](#)

[UPS Map](#)
[No Credit Card?](#)
[Living Wage](#)

[U.S.P.S Map](#)
[Sales Tax](#)
[Visiting](#)

[Shopping Tips](#)
[Returns and Refunds](#)
[Legal](#)

[Shipping](#)
[Sterile Applications](#)

[Checkout](#)
[Nominal Weights](#)

