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Nylon Thread Information



Our Nylon Thread Information page talks about this thread from the customers' viewpoint. Customers learn about when nylon thread should and should not be used, picking the right thread size (thickness), the difference between bonded and soft finishes, deciding how much thread is needed, nylon's elongation (stretchiness), and the difference between left and right twist thread. There are specifications for eleven nylon thread sizes at the bottom of the page and a new [Nylon Thread Size Guide](#).

When to use nylon thread - Use nylon thread for applications that require a strong, inexpensive thread with a glossy smooth finish. This is why nylon is frequently used for upholstery, leather, webbing, canvas, an vinyl. Lighter weight (sizes 15 to 69) are used for garments that have glossy finishes. Nylon thread is *not* recommended for:

Outdoor applications with prolonged sunlight exposure. For example, nylon thread is a great choice for sewing indoor upholstery, and canvas drop cloths used by house painters. In should not be used for outdoor furniture and sewing canvas sails, awnings, tarpaulins. In these cases [polyester thread](#) or UVR rated nylon thread are better choices

Fire retardant garments and gear - Nylon thread yellows at 300 F, sticks at 445 F and melts at 500 F. First responder garments and gear and some high temperature conveyer belts require much more fire retardance. Use [Fire Retardant Sewing Thread](#), [Fire Retardant Embroidery Thread](#), [Filament Kevlar Thread](#), and [Filament Nomex Thread](#) in these situations. All are heat resistant to 700°F or more.

Critical strength requirements - Nylon is strong but [Filament Kevlar Thread](#) is about twice as strong. For example, size 92 nylon as a 15 pound tensile strength; the same size Kevlar has a 30 pound tensile strength. Kevlar's downside is that it costs about five times more than nylon and only available in yellow. Consider using heavier weight nylon or double-stitching to meet strength requirements.

Cotton-like look - Our nylon thread has a smooth, glossy, shiny finish that does not go well with garments that need a soft, fuzzy, cotton-like look. Cotton, spun polyester and nylon thread, and fuzzy nylon are better and less expensive choices. We do not sell these products

Thread Sizes - A thread's size (or weight) refers to its thickness. We use U.S. commercial sizes on our site and cross-reference equivalent Tex and Government sizes. Here is an easy way to understand what happens as thread sizes increase:

When thread size increases...

Thread diameter	Increases
Strength	Increases
Sewing heat and friction	Increases
Needle size	Increases

When thread size increases...

Stitch visibility	Increases
Sewing machine size	Increases
Yards per pound	Decreases

The material sewn often costs ten times more than the thread used to sew it. So, it is usually (parachutes excepted) for the thread to break before the fabric tears. This means that the thickness and strength of the material sewn drives the thickness of the thread used. Here are two guides that relate material weight (ounces per square yard) to thread thickness

Fabric Weight / Thread Sizes from American & Efirid

Fabric Ounces per Square Yard	Thread Size Range
2 to 4 Oz	15 to 23
4 to 6 Oz	23 to 33
6 to 8 Oz	33 to 46
8 to 10 Oz	46 to 69
10 to 12 Oz	69 to 92
12 to 14 Oz	92 to 160

Springfield Leather

Leather Ounces per Square Yard	Thread Size Range
8 Oz or Less	69 to 207
8 Oz to 12 Oz	138 to 277
12 Oz to 16 Oz	207 to 346
Multiple layers	207 to 346

These guides make it clear that there there is a range of thread sizes that will work with different material weights. Also, sewing machine limitations may make double-stitching a lighter thread necessary and getting that "look" may justify using a heavier thread. Our [Nylon Thread Size Guide](#) gives size range recommendations for about 40 items. It is also available as a [PDF Download](#)

Bonded or soft? - Bonded means that a thread has a coating that reduces needle heat and fraying. It makes thread stiffer and about 5% thicker than soft thread. The choice between bonded and soft depends on how the thread is going to be used and thread thickness. Here are our recommendations:

Sewing Application

Machine sewing lightweight thread sizes 15 to 46
Machine sewing thread sizes 69 and higher
Hand sewing
Wrapping and gluing
Other non-sewing applications such as hanging and

Recommendation

Lightweight thread sizes generate little needle heat and are unlikely to fray. Bonded and soft thread work equally well.
Bonded thread is strongly recommended
It does not matter if you use bonded or soft thread.
Soft thread is preferred because bonded thread often repels glues and adhesives. You can soak a bonded thread in alcohol to remove the bonding
Finish does not matter in most cases. Bonded thread is better if it is going through a

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[Nylon Thread Information](#)

[Nylon Thread Size Guide](#)

Topics

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Shopping

[All Nylon Thread](#)

Sizes

Size 15	Size 1
Size 33	Size 2
Size 46	Size 2
Size 69	Size 3
Size 92	Size 4
	Size 5

More

[Juniors - 2 and 4 Ounce Sp](#)

[Thread Boxes - 5 to 50 Pou Assortments](#)

[Monocord Nylon](#)

[Wholesale Cases](#)

[Clearance](#)

reinforcing

narrow tube.

How much thread? - We sell most of our nylon thread in 2 Ounce, 4 Ounce, and 16 Ounce (1 Pound) spool sizes or putups. The smaller putups cost more per ounce than the larger ones. But, they are better values for most casual sewers with one-time projects.

Nylon thread is sold by weight (ounces, pounds) - not yards. This is because the number of yards-per-pound decreases as thread thickness increases. Selling by weight means prices for a given size spool are about the same across most thread sizes.

Industry norms allow nylon thread spool weights to vary by $\pm 10\%$ from the stated nominal weight. This means that customers get slightly less or slightly more thread than the nominal weight shown on our site. The table on the right shows our nominal weights and the thread-weight range (including the spool's weight) for various sizes. When spools fall within these ranges we do not charge for overages or refund underages.

Nominal Weight	Weight Range	
	Minimum	Maximum
2 Oz	2.6 Oz	4.5 Oz
4 Oz	4.6 Oz	5.9 Oz
6 Oz	6.0 Oz	7.9 Oz
8 Oz	8.0 Oz	10.5 Oz
12 Oz	10.6 Oz	15.5 Oz
16 Oz	15.6 Oz	19.9 Oz

Spool Weight	Dimensions	
	Base	Height
2 Oz	2.5"	4.5"
4 Oz	2.5"	4.5"
8 Oz	3.5"	5.5"
16 Oz	4.5"	7.5"



The table on the right gives typical spool dimensions for nylon thread putups. Some home sewing machines do not have spindles that can handle our spools. Use a [Thread Cone Holder](#) to solve this problem. It bypasses the spindle feeds the thread directly into the machine as shown on the far right.

Elongation - Nylon thread stretches about 25% before it breaks. This means that 10 yards of nylon thread will be 12.5 yards when it snaps. This stretchiness is a good thing in most cases. It allows the seams to expand and contract with the material and avoids puckering and breakage. Nylon's stretchiness may not be desirable in some hanging, reinforcing, or wrapping applications. When this is so, consider less stretchy threads such as cotton, spun polyester, or Kevlar.

Twist - Most of the nylon thread on our is left twist (also called Z-twist) because that is what single-needle machines made for the U.S. use. We have a few, clearly marked, right twist (also called S-twist) thread for double-needle machines. A thread's twist makes no difference when it comes to hand-sewing and non-sewing applications.

Other kinds of nylon - There are other kinds of nylon thread worth considering:

Monocord Nylon and Polyester - This thread is made by extruding hair-thin filaments into a smooth, one-ply thread with no twist that is slightly flat and ribbon-like. This thread runs smoother, reduces needle wear, and makes seams that are stronger and less conspicuous. Because it is one-ply, monocord can be used with double-needle machines. Most of our monocord has a UVR coating that gives it UV resistance equivalent to polyester thread.

Monofilament Thread - This thread is a true single-filament thread that is round, smooth, and semi-translucent. It blends with fabric and is the first choice for "invisible" seams. Use clear monofilament with light fabrics and smoke with dark fabrics.

Nylon Thread Specifications

Size

	Size 15	Size 33	Size 46	Size 69	Size 92	Size 138	Size 207	Size 277	Size 346	Size 415	Size 554
Commercial											
Tex	15	30	45	70	90	135	210	270	350	410	600
Government	A	AA	B	E	F	FF	3-Cord	4-Cord	5-Cord	6-Cord	8-Cord

Strength

Pounds	2.0	5.0	8.0	11.0	15.0	22.0	32.0	45.0	53.0	73.0	83.0
Kilos	0.9	2.3	3.6	5.0	6.8	10.0	14.5	20.4	24.0	32.7	37.8

Thickness

Inches - decimal	0.0059	0.0080	0.0094	0.0116	0.1333	0.0163	0.0200	0.0231	0.0258	0.0283	0.0408
Inches - thousandths	6/1000	8/1000	9/1000	12/1000	13/1000	16/1000	20/1000	23/1000	26/1000	28/1000	40/1000
Millimeters	0.1010	0.2032	0.2388	0.2921	0.3378	0.4140	0.5080	0.5867	0.6563	0.7188	1.0358

Needle Size

U.S.	10-12	12-14	14-16	16-18	18-20	20-22	22-24	24-26	26-28	28-30	30-32
Metric	70-80	80-90	90-100	100-110	110-120	120-14	140-180	180-220	220-260	260-330	300-360

Nominal Yards

2 Ounce Spool	3,500	1,700	1,250	750	525	375	250	187	150	130	82
4 Ounce Spool	7,000	3,400	2,500	1,500	1,050	750	500	375	300	260	163
8 Ounce Spool	14,000	6,900	5,000	3,000	2,100	1,500	1,000	750	600	525	325
12 Ounce Spool	21,000	10,350	7,500	4,500	3,150	2,250	1,500	1,050	900	760	470
16 Ounce Spool	28,000	13,800	10,000	6,000	4,200	3,000	2,000	1,500	1,200	1,050	650

Type of Sewing Machine

Home	<input type="checkbox"/>
Commercial	<input type="checkbox"/>
Heavy Duty	<input type="checkbox"/>

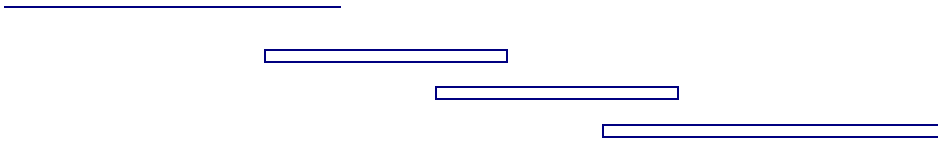
Stitch Visibility

Inconspicuous

Noticeable

Stands Out

Focal Point



**More Choices
Nylon Thread Sizes**

Size 15

Size 33

Size 46

Size 69

Size 92

Size 138

Size 207

Size 277

Size 346

Size 415

Size



[All Nylon](#)



[2 & 4 Oz Juniors](#)



[5 to 50 Lb
Thread Boxes](#)



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