

THREAD & NEEDLE RECOMMENDATIONS

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THREAD MATERIAL OVERVIEW

POLYESTER

Best Choice for Outdoor Projects

Polyester is the most common choice for outdoor applications. Perfect for sail and canvaswork, polyester thread has high strength and stretch control, stability in sunlight (UVR) and resistance to needle heat, abrasion, saltwater and mildew. Use a lighter weight polyester thread in sewing machines that struggle in heavy canvas.

PTFE/FLUOROPOLYMER

Lasts a Lifetime

PTFE and fluoropolymer threads (Sailrite® Lifetime Thread and Tenara®) come with a lifetime guarantee. These are the best threads to use for outdoor applications where your projects will see frequent, intense sun or other weather extremes. These threads are unaffected by exposure to UV rays, cleaning agents, pollution, saltwater, air, rain and snow. These threads are an excellent choice for awnings, biminis, boat covers and more.

NYLON

Perfect for Upholstery

Nylon threads have excellent elasticity, which makes them the perfect choice for upholstery projects. When you sit on a seat, you want the thread to be able to give and rebound under your weight. Nylon is excellent for indoor upholstery, automotive upholstery, luggage and more.

MONOFILAMENT

Clear Thread for Hidden Stitches

Monofilament thread is a clear, strong nylon thread that blends in with fabrics. This thread sews well, and comes in three sizes. Use #18 for quilting, stretchy or heavy garments, and tacking and binding stitches; #40 for fine leather goods and upholstery; and #52 for binding and serging carpets and for upholstery.

6 QUICK TIPS ABOUT THREAD SIZE

- #1** V-69 is the heaviest commercial size recommended for home sewing machines.
- #2** Heavier threads make your stitching more visible.
- #3** The thread size indicates the thread's thickness. If another weight is given for thread (like ounces), it refers to the amount of thread on the spool.
- #4** Thread tends to get stronger as it gets thicker.
- #5** The tension on your sewing machine will need adjusting when you switch thread weights.
- #6** Try to use a needle where the eye is 40% larger than the thickness of the thread.

THREAD SIZES

THREAD SIZE	GOV. SIZE	TEXTILE SIZE	BREAKING STRENGTH	NEEDLE SIZE	FABRIC WEIGHT REC.
Coats® Dual Duty XP Poly	N/A	N/A	N/A	#10 or #12	< 6 oz.
Coats Extra Strong® Nylon	N/A	N/A	N/A	#18	3-6 oz.
V-30 Poly	AA	30	4.5 lbs.	#12 or #14	< 1.5 oz.
V-46 Poly	B	45	7.1 lbs.	#14 or #16	< 3 oz.
V-69 Poly	E	70	10.6 lbs.	#16 or #18	3-6 oz. & Sunbrella
V-69 UV Nylon	E	70	11.31 lbs.	#16 or #18	3-6 oz. & Sunbrella
V-92 Poly	F	90	14.2 lbs.	#18 or #20	6-10 oz. & Sunbrella
V-92 UV Nylon	F	90	15.16 lbs.	#18 or #20	6-10 oz. & Sunbrella
V-138 Poly	FF	135	20 lbs.	#20 or #22	> 10 oz.
V-138 Nylon	FF	135	23.8 lbs.	#20 or #22	> 10 oz.
Sailrite Lifetime/ Tenara (V-92)	F	90	6.7-7.9 / 8-10 lbs.	#14 or #16 (Mesh Fabric) #18 or #20 (Dense Fabric)	3-20 oz. & Sunbrella
Heavy Tenara (V-138)	FF	135	15-20 lbs.	#19 or #20	> 15 oz.
Monofilament #18	N/A	N/A	1.5 lbs.	#10	< 1.5 oz.
Monofilament #40	N/A	N/A	3.5 lbs.	#14	< 3 oz.
Monofilament #52	N/A	N/A	7.5 lbs.	#16	3-6 oz.

NEEDLE SIZE & THREAD	HOME MACHINE										INDUSTRIAL MACHINE														
	NEEDLE POINT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	TENARA® SAILRITE® LIFETIME	MONOFILAMENT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	V-138 UV NYLON	TENARA® SAILRITE® LIFETIME	HEAVY TENARA*	MONOFILAMENT	
BAG MESH	Sharp	#16				✓					#16							✓							
BELLA-DURA®	Sharp	#16				✓	✓				#16				✓	✓									
BLACKOUT DRAPERY FABRICS	Sharp	#10-14	✓							✓	#10-14	✓													✓
BOAT BLANKET	Sharp	#18				✓			✓		#20							✓		✓		✓			
BRAEMORE	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
BRUN-TUFF CAMO VINYL	Sharp	#16				✓			✓		#18							✓				✓			
CARPET HEADLINER	Sharp	#18				✓					#20							✓							
CHILEWICH	Sharp	N/A									#20							✓							
CORDURA® 500D	Sharp	#16				✓	✓				#16				✓	✓									
CORDURA® CLASSIC 1000D	Sharp	#18				✓	✓				#20							✓	✓						
CORDURA® HP	Sharp	#18				✓	✓				#20							✓	✓						
COTTON ARMY DUCK	Sharp	#18				✓					#18				✓										
COTTON DUCK 10OZ	Sharp	#18				✓					#18				✓										
COTTON DUCK 12OZ	Sharp	#18				✓					#20							✓							
COTTON DUCK #8	Sharp	#20				✓					#20							✓							
COVINGTON	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
COVINGTON OUTDOOR	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
COVINGTON SPF (SOLUTION-DYED)	Sharp	#16				✓	✓				#16				✓	✓									
CRYPTON® HOME	Ball	#18					✓	✓			#18				✓	✓									
CUSHION UNDERLINING	Sharp	#18				✓	✓		✓		#18-20				✓	✓		✓	✓				✓	✓	

NEEDLE SIZE & THREAD	HOME MACHINE										INDUSTRIAL MACHINE														
	NEEDLE POINT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	TENARA® SAILRITE® LIFETIME	MONOFILAMENT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	V-138 UV NYLON	TENARA® SAILRITE® LIFETIME	HEAVY TENARA*	MONOFILAMENT	
DACRON® (4 OZ)	Sharp	#16				✓			✓		#16				✓								✓		
DACRON® (4.4-10.4 OZ.)	S,DI,SD1	#16, 18				✓			✓		#18-22							✓					✓		
DENA™ HOME	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
DRAPERY FABRICS	Sharp	#10-14	✓							✓	#10-14	✓													✓
DRY LEATHER	DI	N/A									#18-23							✓	✓	✓	✓				
EUROPATEX	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
EVERSOFT	Sharp	#18				✓	✓		✓		#20							✓	✓	✓	✓	✓			
EVOLUTION® BLOCK-IT®	Sharp	#16				✓					#16			✓											
FIBERGLASS MESH	Sharp	#16				✓					#18-20							✓				✓			
FIRESIST®	Sharp	#18				✓			✓		#20							✓		✓		✓	✓		
FORTRESS® PERFORMANCE HOME	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
FORTRESS® PERFORMANCE INDOOR/OUTDOOR	Sharp	#16				✓	✓				#16			✓	✓										
GENEVIEVE GORDER	Sharp	#12, 16	✓			✓	✓	✓			#12, 16	✓		✓	✓	✓									
GEOBELLA®	Sharp	#16				✓	✓				#16			✓	✓				✓						
HAMILTON	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
HARPER HOME	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
HERCULITE® RIVIERA®	Sharp	#18				✓			✓		#20							✓				✓			
HGTV® HOME	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
IMAN HOME	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓									
INFINITY LUXURY WOVEN VINYL™	Sharp	N/A									#20							✓							

NEEDLE SIZE & THREAD	HOME MACHINE										INDUSTRIAL MACHINE														
	NEEDLE POINT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	TENARA® SAILRITE® LIFETIME	MONOFILAMENT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	V-138 UV NYLON	TENARA® SAILRITE® LIFETIME	HEAVY TENARA*	MONOFILAMENT	
JENNIFER ADAMS®	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
KELLY RIPA	Sharp	#16				✓	✓				#16			✓	✓										
KING TEXTILES	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
MARINE TOPPING	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® 4-WAY STRETCH ALLSPORT 360°	Sharp	#18				✓					#18						✓	✓							
MORBERN® BAYSIDE	Sharp	#18				✓			✓		#20						✓	✓	✓	✓		✓			
MORBERN® HEXX	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® HIDDEN CREEK	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® SANIBEL	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® SEABROOK	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® SEABROOK CHANNELING FABRIC	Sharp	#18				✓			✓		#18						✓					✓			
MORBERN® SEABROOK FOAM BACKED HEADLINER	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® SHOCK	Sharp	#18				✓			✓		#20						✓					✓			
MORBERN® SUNDANCE	Sharp	#18				✓			✓		#20						✓					✓			
MONOFILM (CLEAR) 5 MIL	Sharp	#16				✓					#16			✓											
MOSQUITO NETTING	Ball	#14		✓							#14		✓												
NAUGAHYDE® UNIVERSAL & ALL AMERICAN	Sharp	#18				✓			✓		#20						✓					✓			
NAUGA SOFT	Sharp	#18				✓	✓	✓			#18			✓	✓	✓									
NYLON 200D	Sharp	#14			✓						#14		✓												

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NYLON 400D	Sharp	#16				✓					#16				✓										
ODYSSEY®	Sharp	#18				✓			✓		#18						✓			✓		✓			
PARASOL™	Sharp	#18				✓			✓		#20						✓			✓		✓			
PHIFERTEX® STANDARD MESH, PLUS, STRIPES & JACQUARDS	Sharp	#18				✓			✓		#20						✓			✓		✓			
P/KAUFMANN	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
P/KAUFMANN OUTDOOR	Sharp	#16				✓	✓				#16				✓	✓									
P/KAUFMANN OUTDOOR (solution-dyed, indoor/outdoor fabric)	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
P/K LIFESTYLES®	Sharp	#16	✓				✓	✓			#16	✓				✓	✓								
P/K LIFESTYLES® OUTDOOR	Sharp	#16				✓	✓				#16				✓	✓									
PLATINUM	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
POLYESTER MESH	Sharp	#14			✓						#14			✓											
POLYTEX®	Sharp	#18				✓			✓		#20						✓			✓		✓			
R GALLERY	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
RICHLoom®	Sharp	#12, 16	✓				✓	✓			#12, 16	✓				✓	✓								
ROC-LON® SUPER MUSLIN™	Sharp	#12, 14	✓		✓						#12, 14	✓		✓											
SHEERWEAVE®	Sharp	#18				✓			✓		#20						✓			✓		✓			
SHELTER-RITE®	Sharp	#18				✓			✓		#20						✓			✓		✓	✓		
SOFTLINE	Sharp	#10-14	✓							✓	#10-14	✓													✓
SOFTOUCH®	Sharp	#18				✓			✓		#18						✓			✓		✓			
SOLARIUM®	Sharp	#16				✓	✓				#16				✓	✓									

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SOLTIS® 86	Sharp	#18				✓			✓		#20							✓		✓		✓		
SPINNAKER CLOTH (0.5-0.75 OZ.)	Sharp	#12		✓							#12		✓											
SPINNAKER CLOTH (≥ 1.5 OZ.)	Sharp	#16			✓						#16			✓										
STAMOID® LIGHT	Sharp	#18				✓			✓		#20							✓				✓		
STAMOID® TOP	Sharp	#18				✓			✓		#20							✓				✓		
STUDIO NYC	Sharp	#12, 16	✓					✓	✓		#12, 16	✓				✓	✓							
SUNBRELLA® HORIZON	Sharp	#18				✓		✓	✓		#20							✓	✓	✓	✓	✓		
SUNBRELLA® MARINE, AWNING, DECORATIVE SHADE	Sharp	#18				✓			✓		#20							✓		✓		✓	✓	
SUNBRELLA® SEAMARK®	Sharp	#18				✓			✓		#20							✓				✓	✓	
SUNBRELLA® SHEER & SHADOW	Sharp	#12, 14	✓		✓						#12, 14	✓		✓										
SUNBRELLA® SLING	Sharp	#18				✓			✓		#20							✓		✓				
SUNBRELLA® UPHOLSTERY FABRIC	Sharp	#16				✓		✓	✓		#16			✓	✓	✓								
SUR LAST®	Sharp	#18				✓			✓		#18							✓				✓		
TARGA PREMIUM CANOPY	Sharp	#18				✓			✓		#18							✓				✓		
TOMMY BAHAMA® OUTDOOR	Sharp	#16				✓		✓			#16			✓	✓									
TOMMY BAHAMA® HOME	Sharp	#12, 16	✓					✓	✓		#12, 16	✓			✓	✓								
TOP GUN®	Sharp	#18				✓			✓		#20							✓				✓	✓	
TOP GUN® 1S	Sharp	#18				✓			✓		#20							✓				✓		
TOP NOTCH® 1S	Sharp	#18				✓			✓		#20							✓		✓		✓		
TOP NOTCH® 9	Sharp	#18				✓			✓		#20							✓		✓		✓	✓	

NEEDLE SIZE & THREAD	HOME MACHINE										INDUSTRIAL MACHINE													
	NEEDLE POINT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	TENARA® SAILRITE® LIFETIME	MONOFILAMENT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	V-138 UV NYLON	TENARA® SAILRITE® LIFETIME	HEAVY TENARA*	MONOFILAMENT
TOP NOTCH® 11.5	Sharp	#18				✓			✓		#20							✓				✓	✓	
TRAMP MESH	S, DI	#20				✓			✓		#20							✓		✓		✓	✓	
ULTRALEATHER®	Ball	#18					✓	✓		✓	#18				✓	✓								✓
ULTRALEATHER® PROMESSA® OUTDOOR	Sharp	#18				✓	✓		✓		#20							✓	✓			✓		
ULTRASUEDE® HP	Ball	#18					✓	✓		✓	#18				✓	✓								✓
WAVERLY®	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓								
WAVERLY® SUN N SHADE	Sharp	#16				✓	✓				#16			✓	✓									
WAXED CANVAS COTTON DUCK 12OZ (HEAVY)	Sharp	#18				✓					#20							✓						
WAXED CANVAS COTTON DUCK 12OZ (LIGHT)	Sharp	#18				✓					#20							✓						
WEBLON REGATTA®	Sharp	#16				✓			✓		#18							✓	✓			✓		
WILLIAMSBURG	Sharp	#12, 16	✓				✓	✓			#12, 16	✓			✓	✓								
WINDOW MATERIAL 12 & 20 GAUGE	Sharp	#16				✓					#18-20			✓										
WINDOW MATERIAL 30 & 40 GAUGE	Sharp	#18				✓			✓		#20							✓				✓		
WINDOW MATERIAL 60 GAUGE	Sharp	N/A									#21-22							✓		✓		✓		
X-PLY REINFORCED MONOFILM 4 MIL 4.2 OZ	Sharp	#16				✓					#16			✓										