

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 canvas work 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 (Profilen & 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 upholstery.

THREAD SIZES

THREAD SIZE	GOV. SIZE	TEXTILE SIZE	TENSILE STRENGTH	NEEDLE SIZE	FABRIC WEIGHT REC.
V-30	AA	30	4.5 lb.	#12 or #14	< 1.5 oz.
V-46	B	45	7.1 lb.	#14 or #16	< 3 oz.
V-69	E	70	10.6 lb.	#16 or #18	3 – 6 oz. & Sunbrella
V-92	F	90	14.2 lb.	#18 or #20	6 – 10 oz. & Sunbrella
V-138	FF	135	21.2 lb.	#20 or #22	> 10 oz.
Profilen/ Tenara (v-92)	N/A	N/A	6.7 – 7.9 / 8 – 10	#18 or #20	3 – 20 oz. & Sunbrella
Heavy Tenara (v-138)	N/A	N/A	15 – 20	#19 or #20	> 15 oz.

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 measures 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 heavier.
- #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.

MARINE

For marine applications like dodgers, biminis, boat cabins, awnings, sail covers, cockpit cushions and more.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE										
	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA*, PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	TENARA*, PROFILEN	HEAVY TENARA*	MONOFILAMENT
BOAT BLANKET	Sharp	#18			✓		✓		#20					✓		✓	✓		
BRISA® OUTDOOR	Sharp	#18			✓		✓		#20					✓	✓		✓		
BRUN-TUFF CAMO VINYL	Sharp	#16			✓		✓		#18					✓			✓		
CARPET HEADLINER	Sharp	#20			✓				#20					✓					
CHILEWICH	Sharp	N/A							#20					✓					
COTTON DUCK (LIGHT)	Sharp	#18				✓			#18				✓						
COTTON DUCK (HEAVY)	Sharp	#20			✓				#20				✓						
CUSHION UNDERLINING	Sharp	#18			✓	✓		✓	#18-20			✓	✓	✓	✓				✓
DACRON® (4 OZ)	Sharp	#16			✓		✓		#16			✓					✓		
DACRON® (4.4-10.4 OZ.)	S,DI,SD1	#16, 18			✓		✓		#18-22					✓			✓		
DRY LEATHER	DI	N/A							#18-23					✓	✓	✓			
FIBERGLASS MESH	Sharp	#16			✓				#18-20					✓			✓		
FIRESIST®	Sharp	#18			✓		✓		#20					✓			✓	✓	
FORTRESS® PERFORMANCE INDOOR/OUTDOOR	Sharp	#16			✓	✓			#16			✓	✓						
GEOBELLA®	Sharp	#16			✓	✓			#16			✓	✓		✓				
HERCULITE® RIVIERA	Sharp	#18			✓		✓		#20					✓			✓		

Ball = Ballpoint **DI** = Diamond Point **S** = Sharp

*Use a #14 or #16 needle with Tenara thread or a #19 or #20 with Heavy Tenara thread.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE										
	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA*, PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	TENARA*, PROFILEN	HEAVY TENARA*	MONOFILAMENT
INFINITY LUXURY WOVEN VINYL™	Sharp	N/A							#20					✓					
MARINE TOPPING	Sharp	#18			✓		✓		#20					✓			✓		
MORBERN® ALLSPORT VINYL	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			✓	✓						
ODYSSEY®	Sharp	#18			✓		✓		#18					✓			✓		
PHIFERTEX® MESH & PLUS	Sharp	#18			✓		✓		#20					✓			✓		
POLYESTER MESH	Sharp	#14		✓					#14		✓								
SHELTER-RITE®	Sharp	#18			✓		✓		#20					✓		✓	✓	✓	
SOFTOUCH®	Sharp	#18			✓		✓		#18					✓			✓		

Ball = Ballpoint **DI** = Diamond Point **S** = Sharp

*Use a #14 or #16 needle with Tenara thread or a #19 or #20 with Heavy Tenara thread.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE										
	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA*, PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	TENARA*, PROFILEN	HEAVY TENARA*	MONOFILAMENT
SPINNAKER CLOTH (.5-.75 OZ.)	Sharp	#12	✓						#12	✓									
SPINNAKER CLOTH (≥ 1.5 OZ.)	Sharp	#16		✓					#16		✓								
STAMOID™	Sharp	#18			✓		✓		#20					✓			✓		
SUNBRELLA® MARINE, AWNING, DECORATIVE SHADE	Sharp	#18			✓		✓		#20					✓			✓	✓	
SUNBRELLA® SEAMARK™	Sharp	#18			✓		✓		#20					✓			✓	✓	
SUNBRELLA® UPHOLSTERY FABRIC	Sharp	#16			✓	✓			#16			✓	✓						
SUNFORGER CAR COVER FLANNEL	Sharp	#18			✓	✓			#18			✓	✓						
SUR LAST®	Sharp	#18			✓		✓		#18					✓			✓		
TARGA PREMIUM CANOPY	Sharp	#18			✓		✓		#18					✓			✓		
TOP GUN®	Sharp	#18			✓		✓		#20					✓			✓	✓	
TOP GUN® 1S	Sharp	#18			✓		✓		#20					✓			✓		
TOP NOTCH® 1S	Sharp	#18			✓		✓		#18					✓			✓		
TOP NOTCH® 9	Sharp	#18			✓		✓		#20					✓			✓	✓	
TOP NOTCH® 11.5	Sharp	#18			✓		✓		#20					✓			✓	✓	
TRAMP MESH	S, DI	#20			✓		✓		#20					✓		✓	✓	✓	
ULTRALEATHER®	Ball	#18				✓		✓	#18				✓						✓
ULTRALEATHER® PROMESSA® OUTDOOR	Sharp	#18			✓		✓		#20					✓	✓		✓		
ULTRASUEDE®	Ball	#18				✓		✓	#18				✓						✓
WEBLON REGATTA®	Sharp	#16			✓		✓		#18					✓	✓		✓		
WINDOW MATERIAL 12 & 20 GAUGE	Sharp	#16			✓				#18-20			✓		✓					
WINDOW MATERIAL 30 & 40 GAUGE	Sharp	#18			✓		✓		#20					✓			✓		
WINDOW MATERIAL 60 GAUGE	Sharp								#21					✓		✓	✓		

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*Use a #14 or #16 needle with Tenara thread or a #19 or #20 with Heavy Tenara thread.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE										
SPECIFICATIONS	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA*, PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	TENARA*, PROFILEN	HEAVY TENARA*	MONOFILAMENT
X-PLY REINFORCED MONOFILM 4 MIL 4.2 OZ	Sharp	#16			✓				#16			✓							

OUTDOOR & PATIO

For outdoor home and patio applications like patio cushions, throw pillows, home awnings, outdoor drapery, and outdoor covers and more.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE									
	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA [®] , PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69UV NYLON	V-92 POLY	V-92 UV NYLON	TENARA [®] , PROFILEN	HEAVY TENARA [*]	MONOFILAMENT
BELLA-DURA [®]	Sharp	#16			✓	✓			#16			✓	✓					
BRISA [®] OUTDOOR	Sharp	#18			✓	✓	✓		#20					✓	✓	✓		
COVINGTON OUTDOOR (SD)	Sharp	#16			✓	✓			#16			✓	✓					
CUSHION UNDERLINING	Sharp	#18			✓	✓		✓	#18			✓	✓	✓	✓			✓
EVOLUTION [®] BLOCK-IT [®]	Sharp	#16			✓				#18					✓				
FIRESIST [®]	Sharp	#18			✓		✓		#20					✓		✓	✓	
FORTRESS [®] PERFORMANCE INDOOR/OUTDOOR	Sharp	#16			✓	✓			#16			✓	✓					
GENEVIEVE GORDER	Sharp	#16			✓	✓			#16			✓	✓					
GEOBELLA [®]	Sharp	#16			✓	✓			#16			✓	✓					
KELLY RIPA	Sharp	#16			✓	✓			#16			✓	✓					
MOSQUITO NETTING	Ball	#14	✓						#14	✓								
ODYSSEY [®]	Sharp	#18			✓		✓		#18					✓		✓		
PARASOL [™]	Sharp	#18			✓		✓		#20					✓		✓	✓	
PHIFERTEX [®] MESH, PLUS & DESIGNER SLING	Sharp	#18			✓		✓		#20					✓		✓		
P/KAUFMANN OUTDOOR/ PERFORMANCE	Sharp	#16			✓	✓			#16			✓	✓					

*Use a #14 or #16 needle with Tenara thread or a #19 or #20 with Heavy Tenara thread.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE									
	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA ⁺ , PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69UV NYLON	V-92 POLY	V-92 UV NYLON	TENARA ⁺ , PROFILEN	HEAVY TENARA ⁺	MONOFILAMENT
P/K LIFESTYLES [®] OUTDOOR	Sharp	#16			✓	✓			#16			✓	✓					
POLYTEX [®]	Sharp	#18			✓		✓		#20					✓		✓	✓	
SHEERWEAVE [®]	Sharp	#18			✓		✓		#20					✓		✓	✓	
SOFTOUCH [®]	Sharp	#18			✓		✓		#18					✓		✓		
SOLARIUM [®]	Sharp	#16			✓	✓			#16			✓	✓					
SOLTIS [®] 86	Sharp	#18			✓		✓		#20					✓		✓	✓	
SUNBRELLA [®] MARINE, AWNING, DECORATIVE SHADE	Sharp	#18			✓		✓		#20					✓		✓	✓	
SUNBRELLA [®] SHEER & SHADOW	Sharp	#14		✓					#14		✓							
SUNBRELLA [®] SLING	Sharp	#18			✓		✓		#20					✓		✓		
SUNBRELLA [®] UPHOLSTERY FABRIC	Sharp	#16			✓	✓			#16			✓	✓					
SUR LAST [®]	Sharp	#18			✓		✓		#18					✓		✓		
TOMMY BAHAMA [®] OUTDOOR	Sharp	#16			✓	✓			#16			✓	✓					
TOP NOTCH [®] 1S	Sharp	#18			✓		✓		#18					✓		✓		
TOP NOTCH [®] 9	Sharp	#18			✓		✓		#20					✓		✓	✓	
ULTRALEATHER [®] PROMESSA [®] OUTDOOR	Sharp	#18			✓	✓	✓		#20					✓	✓	✓		
WAVERLY [®] SUN N SHADE	Sharp	#16			✓	✓			#16			✓	✓					

HOME & UPHOLSTERY

For interior home and upholstery projects like pillows, slip covers, window treatments, cushions and more.

NEEDLE SIZE & THREAD	HOME & INDUSTRIAL MACHINE							
SPECIFICATIONS	NEEDLE POINT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	MONOFILAMENT
BLACKOUT DRAPERY FABRICS	Sharp	#10-14	✓					✓
BRAEMORE	Sharp	#16	✓			✓	✓	
BRISA®	Ball	#18				✓	✓	✓
COVINGTON	Sharp	#16	✓			✓	✓	
CRYPTON®	Ball	#18				✓	✓	
DENA™ HOME	Sharp	#16	✓			✓	✓	
DRAPERY FABRICS	Sharp	#10-14	✓					✓
EUROPATEX	Sharp	#16	✓			✓	✓	
FORTRESS® PERFORMANCE HOME	Sharp	#16	✓			✓	✓	
GENEVIEVE GORDER	Sharp	#16	✓			✓	✓	
HAMILTON	Sharp	#16	✓			✓	✓	
HARPER HOME	Sharp	#16	✓			✓	✓	
HGTV® HOME	Sharp	#16	✓			✓	✓	
IMAN HOME	Sharp	#16	✓			✓	✓	
JENNIFER ADAMS®	Sharp	#16	✓			✓	✓	
KING TEXTILES	Sharp	#16	✓			✓	✓	
NAUGA SOFT	Sharp	#18			✓	✓	✓	
P/KAUFMANN OUTDOOR	Sharp	#16	✓			✓	✓	
P/KAUFMANN INDOOR/OUTDOOR	Sharp	#16	✓			✓	✓	

NEEDLE SIZE & THREAD	HOME & INDUSTRIAL MACHINE							
	NEEDLE POINT	NEEDLE SIZE	COATS DUAL DUTY XP POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	COATS EXTRA STRONG NYLON	MONOFILAMENT
P/K LIFESTYLES®	Sharp	#16	✓			✓	✓	
PLATINUM	Sharp	#16	✓			✓	✓	
R GALLERY	Sharp	#16	✓			✓	✓	
ROC-LON® SUPER MUSLIN™	Sharp	#14	✓	✓				
RICHLOOM	Sharp	#16	✓			✓	✓	
SOFTLINE	Sharp	#10-14	✓					✓
STUDIO NYC	Sharp	#16	✓			✓	✓	
SUNBRELLA® SHEER & SHADOW	Sharp	#14	✓	✓				
SUNBRELLA® UPHOLSTERY FABRIC	Sharp	#16			✓	✓	✓	
TOMMY BAHAMA® HOME	Sharp	#16	✓			✓	✓	
ULTRALEATHER®	Ball	#18				✓	✓	✓
ULTRALEATHER® PROMESSA® OUTDOOR	Sharp	#18			✓	✓		
ULTRASUEDE®	Ball	#18				✓	✓	✓
WAVERLY®	Sharp	#16	✓			✓	✓	
WILLIAMSBURG	Sharp	#16	✓			✓	✓	

HOBBY

For marine, outdoor and home hobby projects. Make courtesy and signal flags, backpacks, outdoor gear, laundry bags and much more.

NEEDLE SIZE & THREAD	HOME MACHINE								INDUSTRIAL MACHINE										
	NEEDLE POINT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	TENARA*, PROFILEN	MONOFILAMENT	NEEDLE SIZE	V-30 POLY	V-46 POLY	V-69 POLY	V-69 UV NYLON	V-92 POLY	V-92 UV NYLON	V-138 POLY	TENARA*, PROFILEN	HEAVY TENARA*	MONOFILAMENT
NYLON 200D	Sharp	#14		✓					#14		✓								
NYLON 400D	Sharp	#16			✓				#16			✓							
BAG MESH	Sharp	#16			✓				#16					✓					
CORDURA 500D	Sharp	#16			✓	✓			#16			✓	✓						
CORDURA 1000D	Sharp	#18			✓	✓			#20					✓	✓				
CORDURA HP	Sharp	#18			✓	✓			#20					✓	✓				