THREAD & NEEDLE RECOMMENDATIONS

THREAD MATERIAL OVERVIEW ................................................................. 2

THREAD SIZES.............................................................................................. 2

TIPS.................................................................................................................. 2

MARINE RECOMMENDATIONS ................................................................. 3-5

OUTDOOR AND PATIO RECOMMENDATIONS ....................................... 6-7

HOME AND UPHOLSTERY RECOMMENDATIONS .................................... 8-9
### Thread & Needle Recommendations

**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 MATERIAL OVERVIEW

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### THREAD SIZES

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

### 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.

<table>
<thead>
<tr>
<th>NEEDLE SIZE &amp; THREAD</th>
<th>HOME MACHINE</th>
<th>INDUSTRIAL MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECIFICATIONS</td>
<td>NEEDLE POINT</td>
<td>NEEDLE SIZE</td>
</tr>
<tr>
<td>ALLSPORT VINYL</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>BAG/FLAG NYLON</td>
<td>Sharp</td>
<td>#14</td>
</tr>
<tr>
<td>BAG MESH</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>BOAT BLANKET</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>BRISA OUTDOOR</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>BRUN-TUFF CAMO VINYL</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>CARPET HEADLINER</td>
<td>Sharp</td>
<td>#20</td>
</tr>
<tr>
<td>CHANNELING FABRIC</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>CHILEWICH</td>
<td>Sharp</td>
<td>N/A</td>
</tr>
<tr>
<td>CORDURA</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>COTTON DUCK (LIGHT)</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>COTTON DUCK (HEAVY)</td>
<td>Sharp</td>
<td>#20</td>
</tr>
<tr>
<td>CUSHION UNDERLINING</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>DACRON (4 OZ)</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>DACRON (4.4-10.4 OZ.)</td>
<td>S,DI,SD1</td>
<td>#16, 18</td>
</tr>
<tr>
<td>DRY LEATHER</td>
<td>DI</td>
<td>N/A</td>
</tr>
<tr>
<td>FIBERGLASS MESH</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>FIRESIST</td>
<td>Sharp</td>
<td>#18</td>
</tr>
</tbody>
</table>

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.
<table>
<thead>
<tr>
<th>NEEDLE SIZE &amp; THREAD</th>
<th>HOME MACHINE</th>
<th>INDUSTRIAL MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOBELLA</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>HEADLINER</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>HERCULITE RIVIERA</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>INFINITY</td>
<td>Sharp</td>
<td>N/A</td>
</tr>
<tr>
<td>MARINE TOPPING</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>MORBERN SANIBEL</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>MORBERN SHOCK &amp; HEXX</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>MOSQUITO NETTING</td>
<td>Ball</td>
<td>#14</td>
</tr>
<tr>
<td>NAUGAHYDE</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>NAUGA SOFT</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>ODYSSEY</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>PHIFERTEX &amp; PLUS</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>POLYESTER MESH</td>
<td>Sharp</td>
<td>#14</td>
</tr>
<tr>
<td>RICHLoom FORTRESS</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>SEABROOK</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SEAMARK</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SHELTER-RITE</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SOFTOUCH</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SPINNAKER CLOTH (.5-.75 OZ.)</td>
<td>Sharp</td>
<td>#12</td>
</tr>
<tr>
<td>SPINNAKER CLOTH (≥ 1.5 OZ.)</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>STAMOID</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SUNBRELLA® MARINE, AWNING, DECORATIVE SHADE</td>
<td>Sharp</td>
<td>#18</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>NEEDLE SIZE &amp; THREAD</th>
<th>HOME MACHINE</th>
<th>INDUSTRIAL MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUNBRELLA® UPHOLSTERY FABRIC</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>SUNFORGER CAR COVER FLANNEL</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SUR LAST®</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>TARGA PREMIUM CANOPY</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>TRAMP MESH</td>
<td>S, DI</td>
<td>#20</td>
</tr>
<tr>
<td>TOP GUN</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>TOP GUN 1S</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>TOP NOTCH 9</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>ULTRALEATHER™</td>
<td>Ball</td>
<td>#18</td>
</tr>
<tr>
<td>ULTRASUEDE</td>
<td>Ball</td>
<td>#18</td>
</tr>
<tr>
<td>WEBLON REGATTA</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>WINDOW MATERIAL 12 &amp; 20 GAUGE</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>WINDOW MATERIAL 30 &amp; 40 GAUGE</td>
<td>Sharp</td>
<td>#18</td>
</tr>
</tbody>
</table>

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## OUTDOOR & PATIO

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

<table>
<thead>
<tr>
<th>NEEDLE SIZE &amp; THREAD</th>
<th>HOME MACHINE</th>
<th>INDUSTRIAL MACHINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELLA DURA</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>BRISA OUTDOOR</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>COVINGTON OUTDOOR (SD)</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>CUSHION UNDERLINING</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>EVOLUTION</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>FIRESIST</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>GENEVIEVE GORDER</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>GEOBELLA</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>KELLY RIPA</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>MOSQUITO NETTING</td>
<td>Ball</td>
<td>#14</td>
</tr>
<tr>
<td>ODYSSEY</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>OLY*FUN</td>
<td>Sharp</td>
<td>#14</td>
</tr>
<tr>
<td>PHIFERTEX &amp; PLUS</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>P/K LIFESTYLES OUTDOOR</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>P/KAUFMANN OUTDOOR</td>
<td>Sharp</td>
<td>#16</td>
</tr>
<tr>
<td>POLYTEX</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SHEERWEAVE</td>
<td>Sharp</td>
<td>#18</td>
</tr>
<tr>
<td>SOLARIUM</td>
<td>Sharp</td>
<td>#16</td>
</tr>
</tbody>
</table>

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## Thread & Needle Recommendations

### Thread & Needle Specifications

<table>
<thead>
<tr>
<th>Needle Size &amp; Thread</th>
<th>Home Machine</th>
<th>Industrial Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specifications</strong></td>
<td>V-30 Poly</td>
<td>V-46 Poly</td>
</tr>
<tr>
<td><strong>Needle Size</strong></td>
<td>V-89 Poly</td>
<td>V-69 UV Nylon</td>
</tr>
<tr>
<td><strong>Needle Point</strong></td>
<td>V-69 UV Nylon</td>
<td>MONOFILAMENT</td>
</tr>
</tbody>
</table>

| SOLTIS 86             | Sharp        | #18                | ✓ | ✓ | ✓ | ✓ | #20 |
| SOFTOUCH              | Sharp        | #18                | ✓ | ✓ | ✓ | ✓ | #18 |
| 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 9           | 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.

<table>
<thead>
<tr>
<th>Needle Size &amp; Thread</th>
<th>Needl e Poin t</th>
<th>Needle Size</th>
<th>Coats Dual Duty XP Poly</th>
<th>V-46 Poly</th>
<th>V-49 Poly</th>
<th>V-49 UV Nylon</th>
<th>Coats Extra Strong Nylon</th>
<th>Monofilament</th>
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<tbody>
<tr>
<td><strong>Specifications</strong></td>
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<td>Nauga Soft</td>
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<td>#18</td>
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<tr>
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<td>Sharp</td>
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<tr>
<td>P/Kaufmann</td>
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<tr>
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<td>Sharp</td>
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<td>Softline</td>
<td>Sharp</td>
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<td>Studio NYC</td>
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<td>#16</td>
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<td>✓</td>
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<tr>
<td>Sunbrella® Sheer &amp; Shadow</td>
<td>Sharp</td>
<td>#14</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

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## Thread & Needle Recommendations

### Needle & Thread Specifications

<table>
<thead>
<tr>
<th>Needle &amp; Thread</th>
<th>Needle Point</th>
<th>Needle Size</th>
<th>Coats Dual Duty XP Poly</th>
<th>V-48 Poly</th>
<th>V-69 Poly</th>
<th>V-69 UV Nylon</th>
<th>Coats Extra Strong Nylon</th>
<th>Monofilament</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunbrella® Upholstery Fabric</td>
<td>Sharp</td>
<td>#16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tommy Bahama Home</td>
<td>Sharp</td>
<td>#16</td>
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