

## Woven Applications

**Woven Fabric:** A fabric composed of two sets of yarns, warp and filling, and formed by weaving, which is the interlacing of these sets of yarns to form a fabric. There are many weave patterns but three of the most common constructions include the plain, twill, and satin weaves.

The threads below are the most common thread types and sizes used by manufacturers around the world.

- **#1 Selection** should be used where there are special requirements, such as a) minimizing thread breakage and re-stitched seams; b) for sewing special fabrics that are susceptible to excessive seam puckering; and c) where quality seaming is a must.
- **#2 Selection** should be used where sewing requirements are not as difficult and cost is the major consideration.

The recommendations listed below include the most common thread type & size used for a particular sewn product. In many cases, other thread types are sometimes used for buttonsewing, buttonholing, blindstitching, and other special requirements like overdyeing, etc.

## Apparel – Wovens

GARMENT	FABRIC WGT	#1 THREAD SELECTION Where <u>SEAM QUALITY</u> is Critical	#2 THREAD SELECTION <u>PRICE POINT</u> is the Major Consideration
Blouse	X-Lt.	T-18 Perma Core®	T-21 Spun Poly**
Blouse	Lt. - Med.	T-24 Perma Core®	T-27 Spun Poly**
Boxer Short	Lt.	<b>All Operations:</b> T-24 Perma Core®; <b>Alternative Loper &amp; Serging Threads:</b> T-21 Spun Poly** or T-18 Wildcat Plus®	<b>All Operations:</b> T-27 Spun Poly**; <b>Alternative Loper &amp; Serging Thread:</b> T-18 Wildcat Plus®
Coverall / Overall	Heavy	<b>Topstitching:</b> T-60, T-80 Core (Perma Core® or D-Core®*); <b>Loopers &amp; Serging:</b> T-40 Core (Perma Core® or D-Core®*); *CW Core for Wash-down look	<b>Topstitching:</b> T-60, T-90 Spun Poly**; <b>Loopers &amp; Serging:</b> T-40 Spun Poly**
Denim - Jacket	Heavy	<b>Topstitching:</b> T-60, T-80, T-105 Core (Perma Core®NWT or D-Core®NWT*); <b>Loopers &amp; Serging:</b> T-60, T-40 Core (Perma Core®NWT or D-Core®NWT*); * CW required for Wash-down look	<b>Topstitching:</b> T-90, T-105 Spun Poly**; <b>Loopers &amp; Serging:</b> T-60, T-40 Spun Poly**
Denim - Jean, Short	Med	<b>Topstitching:</b> T-60, T-80 Core (Perma Core® or D-Core®*); <b>Loopers &amp; Serging:</b> T-60, T-40 Core (Perma Core®NWT or D-Core®NWT*); <b>Alternative Loper Threads:</b> T-40 /T-45, T-60 Spun Poly or Magic®; * CW required for Wash-down look	<b>Topstitching:</b> T-60, T-80 Core (Perma Core®); <b>Loopers &amp; Serging:</b> T-60, T-40 Spun Poly**; <b>Alternative Loper Threads:</b> T-40, T-60 Magic®
Denim - Jean, Short	Heavy	<b>Topstitching:</b> T-60, T-80, T-105 (Perma Core® or D-Core®*); <b>Loopers &amp; Serging:</b> T-60, T-40 (Perma Core® or D-Core®*); Alternative Loper Thds: T-60, T-90 Spun Poly or Magic; * CW required for Wash-down look	<b>Topstitching:</b> T-90, T-105, T-120 Spun Poly; <b>Loopers &amp; Serging:</b> T-60, T-40 Spun Poly**; Alternative Loper Threads: T-40, T-60 Magic®
Dress / Skirt	Lt	T-24 Perma Core®	T-21 or T-27 Spun Poly**
Dress / Skirt	Med	T-30 Perma Core®	T-27 or T-40 Spun Poly**
Jacket - Casual	Lt	T-24 Perma Core®	T-27 Spun Poly**
Jacket - Casual	Med	T-30, T-40 Perma Core®	T-40 Spun Poly**
Jogging Suit	Lt	T-24 Perma Core®	T-27 Spun Poly**
Microfiber	Lt	T-18 or T-24 Perma Core®	T-21 Spun Poly**
Microfiber	Med	T-30 Perma Core®	T-27 or T-40 Spun Poly**
Outerwear - Leather	Med	T-40 Perma Core®	T-40 Spun Poly**
Outerwear - Leather	Heavy	<b>Topstitching:</b> T-60 Core (Perma Core® or D-Core®*); <b>Serging:</b> T-40 Core (Perma Core® or D-Core®*); *CW Core for added Needle Heat Protection	<b>Topstitching:</b> T-60, T-80 Spun Poly**; <b>Serging:</b> T-40 Spun Poly**
Outerwear - Overcoat	Med	T-30, T-40 Perma Core	T-40 Spun Poly**
Outerwear – Overcoat, Parka	Heavy	<b>Topstitching:</b> T-60 Core (Perma Core® or D-Core®*); <b>Serging:</b> T-40 Core (Perma Core® or D-Core®*); *CW Core for added Needle Heat protection	<b>Topstitching:</b> T-60 Spun Poly**; <b>Serging:</b> T-40 Spun Poly**
Outerwear - Raincoat	Lt. – Med	T-24, T-30 Perma Core®	T-27 or T-40 Spun Poly**
Outerwear - Ski Suit	Heavy	<b>Topstitching:</b> T-60 Core (Perma Core® or D-Core®*); <b>Serging:</b> T-40 Core (Perma Core® or D-Core®*); *CW Core for added Needle Heat protection	<b>Topstitching:</b> T-60, T-90 Spun Poly**; <b>Loopers &amp; Serging:</b> T-40 Spun Poly**

Apparel – Wovens Continued

GARMENT	FABRIC WGT	#1 THREAD SELECTION Where <b>SEAM QUALITY</b> is Critical	#2 THREAD SELECTION <b>PRICE POINT</b> is the Major Consideration
Overalls	Med	<b>Topstitching:</b> T-40, T-60 Core (Perma Core® NWT or D-Core®NWT*); <b>Serging:</b> T-40 Core (Perma Core®NWT or D-Core®NWT*); *CW Core for added Needle Heat protection	<b>Topstitching:</b> T-60 Spun Poly**; <b>Loopers &amp; Serging:</b> T-40 Spun Poly**
Pajamas	Lt	T-24 Perma Core®	T-27 Spun Poly**
Pants - Casual	Med	<b>Topstitching:</b> T-40 Perma Core®; Alternative <b>Loopers &amp; Serging:</b> T-24 Perma Core®	<b>Topstitching:</b> T-40 Spun Poly**; <b>Serging:</b> T-27 Spun Poly**
Pants - Dress / Suit	Lt	<b>Topstitching:</b> T-24 Perma Core®, Serge Panels: T-21 Spun Poly or T-18 Wildcat Plus®	<b>Topstitching:</b> T-27 Spun Poly**; <b>Serging:</b> T-21 Spun Poly** or T-18 Wildcat Plus®
Pants - Dress / Suit	Med	<b>Topstitching:</b> T-24, T-30 Perma Core; <b>Serging:</b> T-21 Spun Poly or T-18 Wildcat Plus	<b>Topstitching:</b> T-40 Spun Poly**; <b>Serging:</b> T-27 Spun Poly** or T-18 Wildcat Plus®
Pants -Chinos / Khakis	Med	<b>Topstitching:</b> T-40 Core (Perma Core® or D-Core®*); <b>Serging:</b> T-27 Spun Poly; * CW must be used for Wash-Down look.	<b>Topstitching:</b> T-40 Spun Poly**; <b>Serging:</b> T-27 Spun Poly**
Robe - Terry Cloth	Med	T-24, T-30 Perma Core®	<b>Topstitching:</b> T-40 Spun Poly**; <b>Loopers &amp; Serging:</b> T-27 Spun Poly** or T-35 Wildcat Plus®
Shirt - Casual	Lt	<b>Topstitching:</b> T-24 Perma Core; <b>Serging:</b> T-21 Spun Poly	<b>Topstitching:</b> T-21 or T-27 Spun Poly**; <b>Serging Alternative:</b> T-18 Wildcat Plus®
Shirt - Casual	Med	<b>Topstitching:</b> T-30, T-40 Core (Perma Core® or D-Core®*); <b>Serging:</b> T-27, T-30 Spun Poly or T-35 Wildcat Plus®; * CW must be used for Wash-Down Look.	<b>Topstitching:</b> T-40 Spun Poly**; <b>Serging Alternative:</b> T-27 Spun Poly** or T-35 Wildcat Plus®
Shirt - Dress	X-Lt	T-18 Perma Core®	T-21 Spun Poly**
Shirt - Dress	Lt.	T-24 Perma Core®	T-27 Spun Poly**
Shirt - Insulated	Med	<b>Topstitching:</b> T-30, T-40 Core (Perma Cor®e or D-Core®*); <b>Serging:</b> T-27, T-30 Spun Poly or T-35 Wildcat Plus®; * CW must be used for Wash-Down look.	<b>Topstitching:</b> T-40 Spun Poly**; <b>Serging Alternative:</b> T-27 Spun Poly** or T-24 Wildcat Plus®
Sport Jacket	Med	T-24 Perma Core®	T-27 Spun Poly**
Stretch Woven	Lt - Med	T-24, T-30 Perma Core®	T-27 Spun Poly**
Suit Coat	Med	T-24 Perma Core®	T-27 Spun Poly**
Swimsuit - Mens & Boys	Lt	<b>Topstitching:</b> T-24 Perma Core®; <b>Serging Alternative:</b> T-21 Spun Poly or T-24 Wildcat Plus®	<b>Topstitching:</b> T-27 Spun Poly**; <b>Serging:</b> T-18 Wildcat Plus®
Swimsuit - Mens & Boys	Med	<b>Topstitching:</b> T-40 Perma Core®; <b>Serging:</b> T-35 Wildcat Plus®	<b>Topstitching:</b> T-40 Spun Poly**; <b>Serging:</b> T-35 Wildcat Plus®
Vest	Lt	T-24 Perma Core®	T-27 Spun Poly**
Wind Breaker	Lt	T-24 Perma Core®	T-21, T-27 Spun Poly**

**Thread Brand Legend**

<b>A&amp;E Brand Name</b>	<b>Generic Thread Type</b>	<b>Description</b>
<b>Perma Core®</b>	PW Core	Polyester Wrapped, Polyester Core
<b>D-Core®</b>	CW Core	Cotton Wrapped Polyester Core
<b>Perma Spun®, Excell®, Bravo™</b>	Spun Poly**	Spun Polyester
<b>Magic®</b>	Air Entangled	Air Entangled Polyester
<b>Wildcat Plus®</b>	Textured Poly	Textured (bulked) Polyester

**General Guide to Thread Tex Size by Fabric Weight**

**TEX SIZE:** is the gram weight of 1000M of greige yarn. The larger the Tex Size, the heavier the Thread Size.

<b>Thread Tex Size</b>	<b>Oz./Sq. Yd.</b>	<b>Seam Construction Weight</b>
<b>Tex 16, 18, 21</b>	2-4 Oz.	Extra Light
<b>Tex 24, 27, 30</b>	4-6 Oz.	Light
<b>Tex 30, 35, 40, 50</b>	6-8 Oz.	Medium
<b>Tex 50, 60, 70</b>	8-10 Oz.	Medium Heavy
<b>Tex 60, 80, 90, 105, 120</b>	10-14 Oz.	Heavy