

PERMA SPUN® AND EXCELL®

QUALITY SPUN POLYESTER SEWING THREADS



QUALITY SPUN **PERFORMANCE** FOR GENERAL APPAREL AND FOOTWEAR.



A&E's Perma Spun® and Excell® are polyester staple, spun sewing threads, twisted and finished for optimum sewing performance. For use in general sewing, light, and heavy weight garments, Perma Spun® and Excell® are ideal for multiple applications where traditional staple spun polyester is required. These thread products provide excellent seam strength and sewing performance across multiple operations.

Excell® is certified in country of origin for USMCA and CAFTA-DR compliance.

EXCELLENT SEWING PERFORMANCE

These thread products display an excellent and consistent performance on manual and automatic multi-directional sewing machines with fewer sewing interruptions.

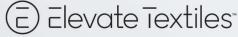
VERY GOOD SEAM SOFTNESS

Developed for when a traditional staple spun polyester thread is required, each of these thread products display a soft hand.

VERY GOOD COLORFASTNESS

Displays very good colorfastness and laundering durability performance with good chemical resistance.

KNITWEAR ● CASUAL WEAR ● MENSWEAR ● LADIES WEAR ● CHILDREN'S WEAR ● OUTERWEAR ● EMBROIDERY ● PANTS ● DRESSES ● SHIRTS ● DENIM ● JACKETS ● FOOTWEAR













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PRODUCT INFORMATION*

Application	Size		Strength		Elongation %		Recommended
	Tex	Ticket	lbs.	cN	Min.	Max.	Needle Size
Light Weight	18**	160	1.5	667	14	24	65/9
	21	140	1.64	730	14	24	70/10
	27	100	2.12	943	14	24	75/11
	30	90	2.32	1,032	14	24	80/12
Medium Weight	40	75	3.22	1,432	14	24	90/14
	45	60	3.63	1,615	14	24	100/16
	60	50	4.67	2,077	14	24	110/18
	70	40	6.11	2,718	14	24	110/18
	80***	36	7.09	3,154	17	26	120/19
	90	30	7.59	3,376	17	26	125/20
Heavy Weight	105	27	9.71	4,319	17	26	125/20
	120	25	10.55	4,693	17	26	130/21
	135**	20	13.21	5,876	17	26	140/22
	210***	13	19.42	8,638	17	26	200/25
Extra Heavy Weight	240	12	22.04	9,803	17	26	200/25

^{*}Physical characteristics provided are for comparative purposes only. Final determination of suitability is the sole responsibility of the user. All physical data shown is based on current averages and should not be used as minimum requirements. **Denotes additional Perma Spun® only size and product details. ***Denotes additional Excell® only sizes. Excell® is certified in country of origin for USMCA / CAFTA-DR compliance.

ECO-DRIVEN®

A&E's Eco-Driven mark is a symbol of our commitment to sustainability and continued investment in innovative technologies that help reduce our global operations environmental footprint. Under Elevate Textiles, A&E and all supporting brands contribute to unified commitments of responsibly sourced fibers, reduced water consumption, and reduced greenhouse gas targets.

WHY CHOOSE A&E?

QUALITY THREAD PRODUCTS SINCE 1891 — A&E is the world's foremost manufacturer and distributor of premium quality industrial and consumer sewing thread, embroidery thread and technical textiles. We provide our customers with the finest products and services, at the highest quality, delivered globally. Our steadfast commitment to superior quality and customer service make A&E the preferred thread supplier. Learn more on A&E's corporate social responsibility and environmental sustainability initiatives, comprehensive product offerings, and global locations at **WWW.AMEFIRD.COM**.

