



A&E APPAREL THREAD SIZE COMPARISON CHART

Thread Construction & A&E Brand	Application	Tex Size	Old A&E Tkt #	Metric	Far East	D-Tex	Cotton Count	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Perma Core® Ultimate	Ex-Light Weight	T-16		180	M180	89/2	66/2	1.9	844	827	65 / 9
		T-18	XXF-140	160	M160	100/2	59/2	1.9	880	863	70 / 10
Shirting & Tailored Clothing	Light Weight	T-24	XF-100	120	M120	131/2	45/2	2.5	1,120	1,099	75 / 11
Perma Core® Poly Wrapped Poly Core	Ex-Light Weight	T-18	XXF-140	160	M160	100/2	59/2	1.9	875	858	65 / 9
	Light Weight	T-24	XF-100	120	M120	131/2	46/2	2.6	1,184	1,161	75 / 11
		T-30	MF-70	80	M80	169/2	35/2	3.5	1,597	1,566	80 / 12
	Medium Weight	T-40	M-50	75	M75	204/2	29/2	4.5	2,041	2,002	90 / 14
		T-50	H-30	60	M60	295/2	20/2	6.6	3,007	2,949	100 / 16
	Heavy Weight	T-60	T-60	50	M50	328/2	18/2	7.6	3,447	3,380	110 / 18
		T-80	T-80H	36	M36	393/2	15/2	9.0	4,078	3,999	120 / 19
		T-105	T-100	27	M27	492/2	12/2	10.7	4,872	4,777	125 / 20
	Ex-Heavy Weight	T-120	T-120	25	M25	393/3	15/3	13.6	6,178	6,058	130 / 21
		T-135	XH-16	20	M20	492/3	12/3	16.2	7,326	7,184	140 / 22
		T-150	XXH-12	18	M18	393/4	15/4	18.3	8,305	8,144	160 / 23
		T-180		14	M14	492/4	12/4	21.7	9,861	9,670	180 / 24
		T-240		12	M12	591/4	10/4	26.7	12,111	11,876	200 / 25
	T-300		8	M8	844/4	7/4	34.3	15,577	15,274	230 / 26	
	Perma Spun® Global Brand	Ex-Light Weight	T-16		180		84/2	70/2	1.2	558	547
T-18				160	602	98/2	60/2	1.4	635	623	70 / 10
T-21				140	803	74/3	80/3	1.8	816	801	70 / 10
Light Weight		T-21	100/2	140	502	111/2	53/2	1.6	744	729	70 / 10
		T-27	70/2	120		154/2	43/2	2.1	943	925	75 / 11
		T-27	50/3	120	603	98/3	60/3	2.2	998	979	75 / 11
Medium Weight		T-30		90		111/3	53/3	2.3	1,052	1,032	80 / 12
		T-40	50/2	75		204/2	29/2	3.2	1,461	1,432	90 / 14
		T-45	40/3	60	403	170/3	39/3	3.6	1,647	1,615	90 / 14
		T-60		50		350/2	19/2	4.7	2,118	2,077	110 / 18
Heavy Weight		T-60	30/3	50	604	204/3	29/3	4.8	2,177	2,135	110 / 18
		T-70	16/2	40		415/2	16/2	6.1	2,771	2,718	110 / 18
		T-80		36		474/2	14/2	7.1	3,216	3,154	120 / 19
		T-90	20/3	30	606/203	350/3	19/3	7.6	3,443	3,376	120 / 20
		T-105	16/3	27		415/3	16/3	9.7	4,404	4,319	125 / 20
Ex-Heavy Weight	T-120		25	204	332/4	20/4	10.6	4,785	4,693	130 / 21	
	T-135		20	T22	554/3	12/3	11.1	5,035	4,937	140 / 22	
	T-210		13		831/3	8/3	19.4	8,800	8,629	180 / 24	
	T-240		12		554/5	12/5	19.8	8,981	8,807	200 / 25	
	T-270		11	Gimp	332/9	20/9		-	-	NA	



A&E APPAREL THREAD SIZE COMPARISON CHART

Thread Construction & A&E Brand	Application	Tex Size	Old A&E Tkt #	Metric	Far East	D-Tex	Cotton Count	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Magic® Air Entangled Polyester	Light Weight	T-21		140	M140	210/1		2.2	975	956	70 / 10
		T-27		100	M100	270/1		2.7	1,220	1,197	75 / 11
	Medium Weight	T-40		75	M75	400/1		3.9	1,765	1,730	90 / 14
		T-45		60	M60	450/1		4.9	2,236	2,193	100 / 16
	Heavy Weight	T-60		50	M50	600/1		7.2	3,284	3,220	110 / 18
		T-90		30	M30	900/1		9.5	4,309	4,226	120 / 20
		T-135		20	M20	1350/1		14.7	6,668	6,539	150 / 24
Signature Plus® Air Entangled Trilobal Polyester	Medium	T-60		50	M50	600/1		7.2	3,284	3,220	110 / 18
		T-90		30	M30	900/1		9.7	4,386	4,301	120 / 20
	Heavy Weight	T-120		25	M25			12.2	5,548	5,440	130 / 21
	Ex-Hvy Weight	T-240		12	M12			24.3	11,022	10,809	180/24
Thread Construction & A&E Brand	Application	Tex Size	Old A&E Tkt #	Metric	Far East	D-Tex	Denier	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Wildcat® Plus Textured polyester	Light Weight	T-18	T-18	M160	715	188/1	150	1.7	789	774	60 / 8
		T-24	T-24	M120	720	250/1	200	2.1	953	934	65 / 9
	Medium Weight	T-35	T-35	M80	730	375/1	300	3.2	1,438	1,410	75 / 10
		T-50		M60		188/3	450	5.3	2,386	2,340	90 / 14
	Heavy Weight	T-70	T-70	M40	760	375/2	600	5.9	2,690	2,638	110 / 18
		T-105	T-105	M27		375/3	900	7.7	3,493	3,425	140 / 22
Embroidery Threads	Application	Tex Size	Yarn Construction	Denier	D-Tex	Actual Tex Size	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.	
Super Strength® Rayon	Light to Med. Wt.	Tkt 40	120d x 2	240	150/2	26.7	1.49	676	663	65 / 9	
		Tkt 35	150d x 2	300	188/2	33.3	1.81	821	805	70 / 10	
Super Brite® Polyester	Light to Med. Wt.	Tkt 40	120d x 2	240	150/2	26.7	2.9	1,315	1,290	65 / 9	
J Metallic®	Light to Med. Wt.	Tkt 40	240d x1	240	300/1	27.7	2.84	1,288	1,263	70 / 10	
Signature®	Light Weight	Tkt 60			150/1	15	1.22	553	543	65 / 9	
	Medium Weight	Tkt 40			213/1	21.3	1.83	830	814	65 / 9	
		Tkt 30			353/1	35.3	3.44	1,560	1,530	75 / 11	
	Heavy Weight	Tkt 20			513/1	51.3	4.48	2,032	1,993	100 / 16	
	X-Heavy Weight	Tkt 10			666/1	66.6	6.45	2,926	2,869	110 / 18	
Moonglow®	Light to Med. Wt.	Tkt 40	120d x 2	240	150/2	26.7	1.1	499	489	70 / 10	
Super Safe™	Light to Med. Wt.	Tex 27	40 / 2	265	166/2		1.48	671	658	70 / 10	

Notes:

*SEB - Single End Break (lbs.) All strengths are for comparative purposes and should not be used as minimum requirements.

**Minimum recommended needle sizes. Includes both the newer Metric Needle Size designation and the older Singer needle size designation.



A&E APPAREL THREAD SIZE COMPARISON CHART

A&E Brand & Thread Construction	Application	Tex Size	Old A&E Tkt #	Metric	Far East	D-TEX	Cotton Count	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Nomex® Spun Meta-Aramid	Light Weight	T-27	43/2	100	M100		43/2	1.6	726	712	75/11
	Medium Weight	T-40	43/3	75	M75		43/3	2.6	1,179	1,156	90/14
		T-60	29/3	50	M50		29/3	3.9	1,769	1,735	100/16
	Heavy Weight	T-80	29/4	36	M36		29/4	5.3	2,404	2,357	110/18
		T-90	24/4	30	M30		24/4	6.5	2,948	2,891	125/20
A&E Brand & Thread Construction	Application	Tex Size	Old A&E Tkt #	Metric	Far East	D-TEX	Cotton Count	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Kevlar® Spun Para-Aramid	Medium Weight	T-40	29/2	75	M75		29/2	6.1	2,767	2,713	100/16
		T-60	29/3	50	M50		29/3	10.1	4,581	4,492	110/18
	Heavy Weight	T-80	29/4	36	M36		29/4	14.0	6,350	6,227	110/18
		T-90	29/5	30	M30		29/5	18.0	8,165	8,006	125/20
	X- Heavy Weight	T-105	19/4	25	M25		19/4	21.5	9,752	9,563	130/21

Notes:

*SEB - Single End Break (lbs.) All strengths are for comparative purposes and should not be used as minimum requirements.

**Minimum recommended needle sizes. Includes both the newer Metric needle size designation and the older Singer needle size designation.

Kevlar® and Nomex® are registered Trademarks of E.I. du Pont de Nemours and Company and are used under license to A&E, Inc. □



CONTINUOUS FILAMENT THREAD SIZE COMPARISON CHART

A&E Brand & Thread Construction	BT- Bonded SST – Soft & Stretch STX – Not Stretched	Tex Size	Yarn Construction	Metric Size	Dtex	Old Tkt Size	US Gov. A-59826 Type I & II (VT295E)	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Anefil Nylon®	SST	T-14	60d X 2	200	67/2			1.7	771	756	55 / 7
	BT, SST, STX	T-16	70d X 2	180	78/2		OO	2.2	998	979	55 / 7
	BT, SST, STX	T-21	70d X 3	140	78/3		A	3.4	1,547	1,517	65 / 9
	BT, SST, STX	T-30	100d X 3	80	111/3	33	AA	4.9	2,214	2,171	75 / 11
	BT, SST, STX	T-45	210d X 2	60	233/2	46	B/2	7.4	3,357	3,292	90 / 14
	BT, SST, STX	T-70	210d X 3	40	233/3	69	E	11.3	5,130	5,031	110 / 18
	BT, SST, STX	T-90	210d X 4	30	233/4	92	F	15.2	6,877	6,743	125 / 20
	BT	T-105	315d X 3	27	350/3			21.5	9,752	9,563	125 / 20
	BT, SST, STX	T-135	420d X 3	20	467/3	138	FF	23.8	10,796	10,586	140 / 22
	BT, SST	T-210	630d X 3	13	700/3	207	#3	35.0	15,876	15,568	200 / 254
	BT, SST	T-270	840d X 3	10	933/3	277	#4	49.0	22,226	21,795	200 / 25
	BT, SST	T-350	840d X 4	8	933/4	346	#5	53.0	24,041	23,574	230 / 26
	BT, SST	T-400	1260d X 3	7	1400/3	415	#6	75.0	34,020	33,360	250 / 27
	BT, SST	T-500		6		456	#7	78.0	35,381	34,694	280 / 28
	BT, SST	T-600	1680d X3	5	1867/3	554	#8	95.0	43,092	42,256	280 / 28
	BT, SST	T-700	1890d X3	4	2100/3	693	#10	106.0	48,082	47,149	300 / 29
	A&E Brand & Thread Construction	Finish BMX = Bonded Monocord	Tex Size	Yarn Construction	Metric Size	Dtex	Old Tkt Size	US Gov. A-59826 Type III (VT295E)	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)
Anecord® Nylon	BMX	T-16	140d X 1	180	155/1		OO	1.7	771	756	55 / 7
	BMX	T-18	170d X 1	160	188/1		OO	2.5	1,134	1,112	55 / 7
	BMX	T-30	280d X 1	80	311/1	30	AA	4.8	2,177	2,135	70 / 10
	BMX	T-35	315d X 1	75	350/1		AA	5.0	2,268	2,224	80 / 12
	BMX	T-45	420d X 1	60	467/1	46	B	7.4	3,357	3,292	80 / 12
	BMX	T-60	525d X 1	50	583/1			9.9	4,495	4,408	100 / 16
	BMX	T-70	630d X 1	40	700/1	63	E	11.3	5,126	5,026	110 / 18
	BMX	T-90	840d X 1	30	933/1		F	15.2	6,895	6,761	125 / 20
	BMX	T-105	1050d X 1	25	1167/1			16.3	7,394	7,250	140 / 22
	BMX	T-120		20				18.5	8,410	8,247	140 / 22
	BMX	T-135	1260d X 1	20	1400/1		FF	23.8	10,796	10,586	150 / 23
	BMX	T-150	1470d X 1	15	1633/1		#3	28.0	12,696	12,450	160 / 24
	BMX	T-210		13				34.8	15,785	15,479	180 / 24
	BMX	T-350		8				53.1	24,086	23,619	230 / 26

NOTES:

*SEB - Single End Break (lbs.) All strengths are for comparative purposes and should not be used as minimum requirements.

**Minimum recommended needle sizes. Includes both the newer Metric needle size designation and the older Singer needle size designation.



CONTINUOUS FILAMENT THREAD SIZE COMPARISON CHART

A&E Brand & Thread Construction	Finish BT- Bonded SST - Soft & Stretch STX - Not Stretched	Tex Size	Yarn Construction	Metric Size	Dtex	Old Tkt Size	US Gov. Tkt Mil-DTL 32072 Type I & II (VT285E)	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Anefil Polyester®	STX	T-16	67d X 2	180	74/2		OO	1.8	816	801	65 / 9
	SST, STX	T-21	67d X 3	140	74/3		A	3.4	1,542	1,512	65 / 9
	BT, SST, STX	T-30	125d X 2	80	139/2	33	AA	4.7	2,132	2,091	70 / 10
	STX	T-35	110d X 3	75	122/3	33		5.2	2,359	2,313	70 / 10
	BT, SST, STX	T-45	220d X 2	60	244/2	46	B/2	6.7	3,039	2,980	80 / 12
	STX	T-50	150d X 3		167/3	60	B/3	6.0	2,722	2,669	90 / 14
	BT, SST, STX	T-70	220d X 3	40	244/3	69	E	10.4	4,717	4,626	100 / 16
	BT, SST, STX	T-90	220d X 4	30	244/4	92	F	13.3	6,037	5,920	120 / 20
	BT, SST, STX	T-135	420d X 3	20	467/3	138	FF	22.0	9,979	9,786	140 / 22
	BT, SST	T-210	630d X 3	15	700/3	207	#3	31.0	14,062	13,789	180 / 24
	BT, SST	T-270	840d X 3	10	933/3	277	#4	41.0	18,598	18,237	200 / 25
	BT, SST, STX	T-350	1100d X 3	8	1222/3	346	#5	57.0	25,855	25,354	230 / 26
	BT, STX	T-400	1300d X 3	7	1444/3	415	#6	66.0	29,938	29,357	250 / 27
	BT, SST	T-600	1300d X 4	5	1444/4	554	#8	84.0	38,102	37,363	280 / 28
	BT, SST	T-700	2000d X 3	4	2222/3	693	#10	105.0	47,628	46,704	
A&E Brand & Thread Construction	Finish BMX = Bonded Monocord	Tex Size	Yarn Construction	Metric Size	Dtex	Old Tkt Size	US Gov. Tkt Mil-DTL 32072 Type III (VT285E)	Avg.* Strength (lbs)	Avg.* Strength (grams)	Avg.* Strength (cN)	Ndl Sz.** Min. Sz.
Anecord® Polyester	BMX	T-14	125d X 1	220	139/1		OO	1.9	862	845	65 / 9
	BMX	T-45	440d X 1	60	489/1	46	B	7.2	3,266	3,203	100 / 16
	BMX	T-70	640d X 1	40	711/1	63	E	10.4	4,717	4,626	110 / 18
	BMX	T-90	840d X 1	30	933/1		F	14.0	6,350	6,227	120 / 20
	BMX	T-105	1000d X 1	25	1111/1			16.8	7,620	7,473	125 / 21
	BMX	T-120	1100 X 1	20	1222/1			20.0	9,072	8,896	130 / 21
	BMX	T-135	1300d X 1	20	1444/1		FF	22.7	10,297	10,097	140 / 22
	BMX	T-180	1800d X 1	15	2000/1			34.0	15,422	15,123	180 / 24
	BMX	T-210	2000d X 1	15	2222/1		#3	37.0	16,783	16,458	200 / 25

Notes:

*SEB - Single End Break (lbs.) All strengths are for comparative purposes and should not be used as minimum requirements.

**Minimum recommended needle sizes. Includes both the newer Metric needle size designation and the older Singer needle size designation.