

GLT[®]

PRODUCTS[®]

Insulation Innovation



High Temperature Threads For
Insulation Blankets

GUIDE



High Temperature Sewing Threads for the Insulation Industry

High temperature sewing threads are useful in applications with temperatures up to 2000°F. These threads provide excellent long term outdoor exposure and are compatible with all industrial sewing machines. The threads featured here are used across a wide number of applications for the industrial insulator. They are key components in the manufacturing of removable insulation blankets.

Teflon Coated Threads (D-18 and D-24)

- Suitable temperatures from -400°F to +600°F. They are unaffected by fungi and impervious to alkalis.
- High strength, uniform PTFE coating
- Excellent flexibility
- Chemical resistance



	D-18	D-24
Color	Brown	Brown
Diameter	.018"	.021"
Tensile Str./lb	18	25
Yards/lb	1,900	1,500
Type of Twist	"Z"	"Z"
Fiber	Fiberglass	Fiberglass
Reinforcement	none	none
Coating Type	Teflon	Teflon
Mil. Spec.	Y-1140C Form 1 Class C	C-20079 Type III Class 4 - with exception of tensile strength

Inconel Wire and SS T304

These threads are constructed with 10 strands of .0017" wire wound in a unique fashion and covered with three flame retardant polyester threads to prevent metal-to-metal wear. Both are coated with silicone for smooth operation.

- Will withstand high heat and temperature cycling
- Integrity maintained after long-term exposure to outside elements
- Resistance to mildew, aging, alkalis, chlorides and many other liquids and gases



	Inconel	SS T304
Color	White	White
Temp Limit	2000°F	1000°F
Diameter	.0017"	.0017"
Break Strength	8 lbs	8 lbs
Elongation	30%	30%
Coating Type	#4510 Silicone	
Spool Weight	2 Pounds	2 Pounds
Yield	Approx. 6100 LFT per pound	Approx. 6500 LFT per pound

KEVLAR®

KEVLAR® threads are frequently used in removable and reusable insulation blankets for marine, aerospace, industrial and commercial applications. These threads are considered one of the strongest and most heat resistant threads that are currently available. They are significantly stronger than nylon or polyester threads.

	Tex 90	Tex 134	Tex 150
Thread Type	Natural	Craq-Spun	Natural with 0.031 stainless steel insert
Max Operating Temperature	800°F	800°F	1200°F
Diameter	.014	.016	.031
Break Strength (lbs.)	8	37	23
Spool Weight	1 lb	.5 lbs	1 lb
Yield (yds/lb.)	4,800	1,650	1,800



KEVLAR®

- Tensile strength of 30 lbs.
- Decomposes (turn to ash) at about 800°F
- Kevlar threads do not melt
- 2% stretching before it breaks
- Fair resistance to dilute acids and bases
- Excellent resistance to mildew and aging



COMPARISON DATA

	Kevlar®			Teflon Coated Fiberglass		Inconel Wire	SS T304
	Tex 90 Kevlar®	Tex 135 Kevlar®	Tex 150 Kevlar®	D-18	D-24		
Name	Tex 90 Kevlar®	Tex 135 Kevlar®	Tex 150 Kevlar®	D-18	D-24	Inconel Wire	SS T304
Thread Type	Natural	Craq-Spun	Natural with 0.031 Stainless Steel insert	PTFE Coated Fiberglass	PTFE Coated Fiberglass	10 Strands .0017" Inconel Wire	10 Strands .0017" Steel T304
Max Operating Temperature	800°F	800°F	1200°F	600°F	600°F	2000°F	1000°F
Approx. Diameter (Inches)	.014	.016	.031	.018	.021	.0145 overall	.0145 overall
Approx. Break Strength (lbs.)	8	37	23	18	25	8	8
Spool Weight	1 lb	.5 lbs	1 lb	Approx. 2 lbs	Approx. 2 lbs	Approx. 2 lbs	Approx. 2 lbs
Yield (yds/lb)	4,800	1,650	1,800	2,000	1,500	2,166	2,033



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