

2" Kevlar Specifications



Property	Unit	KEVLAR 29	KEVLAR 49
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YARN

Type	denier (dtex) # of filaments*	1,500 (1,670) 1,000	1,140 (1,270) 768
Density	lb/in. ³ (g/cm ³)	0.052 (1.44)	0.052 (1.44)
Moisture Levels			
As Shipped**	%	7.0	3.5
Equilibrium from bone dry Yarn***	%	4.5	3.5

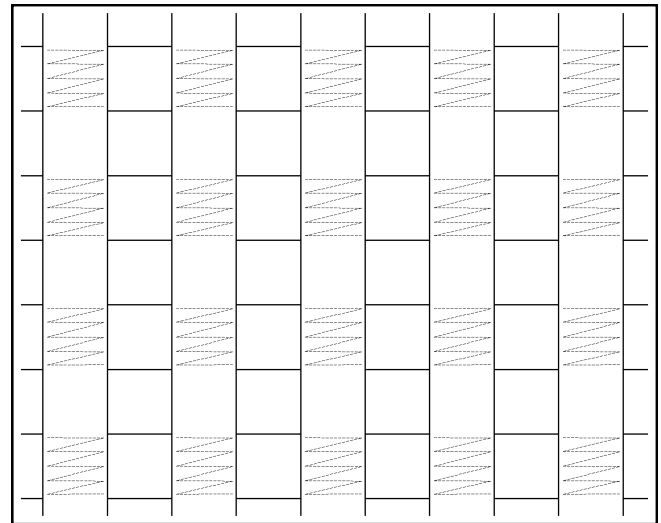
TENSILE PROPERTIES

Straight Test on Conditioned Yarns

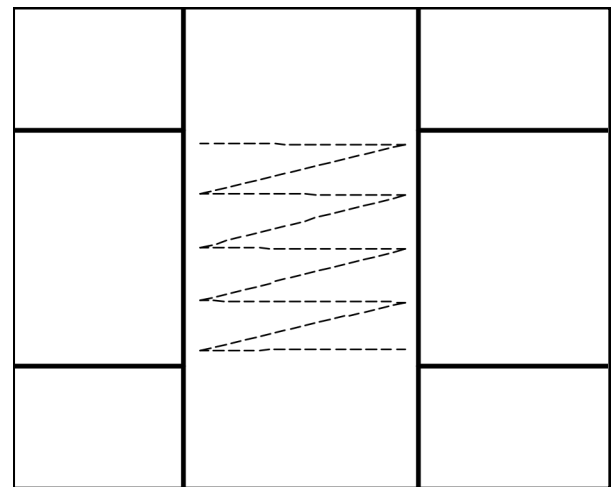
Breaking Strength	lb (N)	76.0 (338)	59.3 (264)
Breaking Tenacity	g/d (cN/tex) psi (MPa)	23.0 203 424,000 (2,920)	23.6 (208) 435,000 (3,000)
Tensile Modulus	g/d (cN/tex) psi (MPa)	555 (4,900) 10.2 x 10* (70,500)	885 (7,810) 16.3 x 10* (112,400)
Elongation at Break	%	3.6	2.4
Resin Impregnated Strands			
Tensile Strength	psi (MPa)	525,000 (3,600)	525,000 (3,600)
Tensile Modulus	psi (MPa)	12.0 x 10* (83,000)	18.0 x 10* (124,000)

THERMAL PROPERTIES

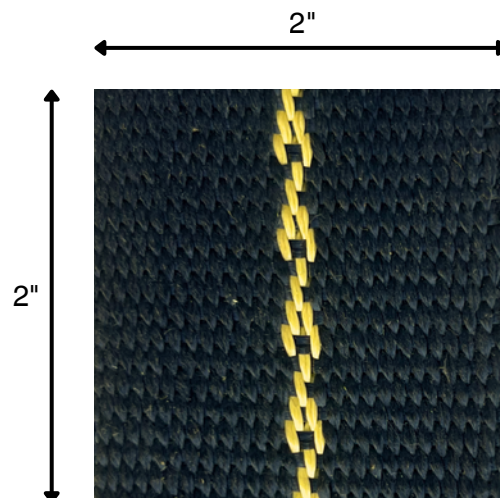
Shrinkage			
In Water at 212°F (100°C)	%	<0.1	<0.1
In Dry Air at 351°F (177°C)	%	<0.1	<0.1
Shrinkage Tension			
In Dry Air at 351°F (177°C)	G/D (cN/tex)	<0.1 (0.88)	<0.2 (1.77)
Specific Heat			
At 77°F (25°C)	cal/g x °C (J/kg x K)	0.34 (1,420)	0.34 (1,420)
At 212°F (100°C)	cal/g x °C (J/kg x K)	0.48 (2,010)	0.48 (2,010)
At 356°F (180°C)	cal/g x °C (J/kg x K)	0.60 (2,515)	0.60 (2,515)
Thermal Conductivity	BTU x in/(h x ft ² x F°) [W/(m x K)]	0.3 [0.04]	0.3 [0.04]
Decomposition	°F	800 - 900	800 - 900
Temperature in Air	(°C)	(427-482)	(427-482)
Recommended max. temperature Range for Long- Term Use in Air	°F (°C)	300 - 350 (149-177)	300 - 350 (149-177)
Heat of Combustion	BTU/lb (Joule/kg)	15,000 (35 x 10*)	15,000 (35 x 10*)
Poisson's Ratio			0.36



2" Polyester is webbing sewn in a grid format



10 point stitching (5 points on each side) reinforces strength of 2" webbing



Available in
Black only