



Lamitex® PK50

Lamitex® PK50 is composed of a 17 oz fabric woven blend of aramid and "soft glass" fibers that is stronger than 100% aramid and less abrasive than glass fabrics. PK50 has excellent mechanical strength at elevated temperatures, adverse environments and possesses excellent moisture and chemical resistance while maintaining dependable dimensional stability in continuous high temperature environments. PK50 is custom formulated for use as rotor vane material in compressors and vacuum pumps for industrial processing and liquefied gas transfer. It is also an exceptional material for high temperature bearings, wear strips and other high temperature and high load bearing applications.

<u>Physical Properties</u>	<u>Test Condition</u>		<u>ASTM</u>	<u>PK-50</u>
Specific Gravity			D792	1.43
Rockwell Hardness (M scale)				85
Moisture Absorption (.125")	D ₁ -24/23			2.62%
Flexural Strength (.125")	Condition A	lengthwise	D790	30,700 psi / 211.7 MPa
		cross wise		14,100 psi / 97.2 MPa
	E-1/1500 T150	lengthwise	D790	24,600 psi / 169 MPa
		cross wise		11,700 psi / 80.7 MPa
Flexural Modulus (.125")	Condition A	lengthwise		1,800 kpsi / 12.4 GPa
		cross wise		1,700 kpsi / 11.7 GPa
Tensile Strength (.125")	Condition A	lengthwise	D638	21,600 psi / 148.9 MPa
		cross wise		8,300 psi / 57.2 MPa
Compressive Strength (.500")	Condition A	Flatwise	D695	36,600 psi / 252.3 MPa
Izod Impact Strength	Condition A	lengthwise	D256	5.00 ft-lb/in / 4.50 J/cm
		cross wise		4.5 ft-lb/in / 2.40 J/cm

Thermal Properties

Temperature Index (UL Bulletin 746b)		Electrical / Mechanical	- / 165°C
Coefficient of Linear Thermal Expansion	X Axis	E831	6.24 µm/m·°C
	Y Axis		12.62 µm/m·°C
Coefficient of Linear Thermal Expansion as %	X Axis	E831	0.06%
	Y Axis		0.16%
Flammability Rating (UL Bulletin 94)			HB

All information and suggestions pertaining to the properties and uses of the materials described herein are based upon tests and data believed to be accurate; however, the final determination regarding the suitability of any material for such use is the sole responsibility of the user. No warranty is expressed or implied, including, without limitation, warrant of merchantability or fitness for a particular purpose. Under no circumstances shall Lamitex, LLC be liable for incidental or consequential loss or damage.

Composite Tubes • Bearings • Molded Shapes • Rotary Vanes • Fabricated Parts • Vulcanized Fibre • High Temp Insulation