

**MATERIAL:****PHYSICAL PROPERTIES:**

	<b>PKI 100</b>	<b>PKI 105</b>
Density ( $\times 10^3 \text{ Kg/m}^3$ )	6.0	5.7
Curie Temperature ( $^{\circ}\text{C}$ )	450	TBD
Mechanical Q	20	20
Maximum Operating Temperature ( $^{\circ}\text{C}$ )	350	TBD

**ELECTRICAL PROPERTIES @ 25°C:**

Dielectric Constant @ 1 KHz	300	800
Dissipation Factor @ 1 KHz (%)	<1.5	<2
Planar Coupling Factor, $k_p$		
Transverse Coupling factor, $k_{31}$		
Longitudinal Coupling Factor, $k_{33}$	0.35	0.35
Shear Coupling Factor, $k_{15}$	0.28	
Longitudinal Charge Coefficient, $d_{33}$ ( $\times 10^{-12} \text{ m/V}$ )	85	180
Shear Charge Coefficient $d_{15}$ , ( $\times 10^{-12} \text{ m/V}$ )	105	
Longitudinal Voltage Coefficient, $g_{33}$ ( $\times 10^{-3} \text{ V m/N}$ )	32.0	27.0
Shear Voltage Coefficient, $g_{15}$ ( $\times 10^{-3} \text{ V m/N}$ )	31.0	

**MECHANICAL PROPERTIES @ 25°C:**

Young's Modulus ( $\times 10^{10} \text{ N/m}^2$ )		
Poisson's Ratio (-)		
Elastic Compliance $s_{11}^E$ ( $\times 10^{-12} \text{ m}^2/\text{n}$ )		
Elastic Compliance $s_{33}^E$ ( $\times 10^{-12} \text{ m}^2/\text{n}$ )		

**FREQUENCY CONSTANTS @ 25°C:**

Planar Frequency Constant $N_p$ (Hz-m [KHz-in])		
Transverse Frequency Constant $N_t$ (Hz-m [KHz-in])		
Length Frequency Constant $N_3$ (Hz-m [KHz-in])		
Thickness Frequency Constant $N_l$ (Hz-m [KHz-in])	1524 [60.0]	1676 [66.0]
Shear Frequency Constant $N_5$ (Hz-m [KHz-in])	[38.3]	

**AGEING RATES:**

Dielectric Constant (% per time decade)		
Resonant Frequency (% per time decade)		
Coupling Constant (% per time decade)		

**MAXIMUM OPERATING FIELD:**

AC (KV/m [V/mil])		
DC - forward (KV/m [V/mil])		
DC - reverse (KV/m [V/mil])		