

## Piezo Kinetics PKI 105 Lead Metaniobate Piezoelectric

Category: Ceramic, Oxide, Piezoelectric

## **Material Notes:**

Lead Metaniobate exhibits properties not usually present in other types of piezoelectric ceramics. The noteworthy facts are its low mechanical QM, negligible aging, wide range of operating temperatures and small values for lateral and planar coupling compared to longitudinal coupling. The low QM enhances the use of PKI 105 material in the construction of wide bandwidth sensors for high frequency pulse echo measurements that require a short pulse and critical resolution. Its negligible aging helps simplify circuit design. Wide variations in temperature have limited effect on its dielectric and piezoelectric properties making it ideal for high temperature applications. Its high longitudinal coupling compared to lateral and planar coupling allows it to generate a better response under hydrostatic pressures and makes it useful for underwater sonar equipment. Property data at 25°C. Information supplied by Piezo Kinetics, Inc.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Piezo-Kinetics-PKI-105-Lead-Metaniobate-Piezoelectric.php

Physical Properties	Metric	English	Comments
Density	5.70 g/cc	0.206 lb/in <sup>3</sup>	

Electrical Properties	Metric	English	Comments
Dielectric Constant	800	800	
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dissipation Factor	<= 0.020	<= 0.020	
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Piezoelectric Longitudinal Coupling Factor, k33	0.35	0.35	
Piezoelectric Longitudinal Voltage Coefficient, g33, 10^-3 V-m/N	27	27	
Piezoelectric Mechanical Q	20	20	
Piezoelectric Longitudinal Charge Coefficient, d33, 10^-12 m/V	180	180	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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