

Channel Industries 600 Barium Titanate Piezoelectric

Category : Ceramic , Oxide , Titanium Oxide , Piezoelectric

Material Notes:

Modified barium titanates are widely used in transducers requiring moderate power level and receiving sensitivity. Special characteristics have made barium titanate a proven material for use in devices such as depth sounders and expendable hydrophones. Uses of this grade include: Low Power Sonar; Ultrasonic Cleaners
Coupling Constants: k_{33} : 0.39 k_{31} : -0.16 k_{15} : 0.39 k_p : -0.27
Piezoelectric Constants: d_{33} : 82 x 10⁻¹² m/V d_{31} : -33 x 10⁻¹² m/V d_{15} : 150 x 10⁻¹² m/V g_{33} : 16.8 x 10⁻³ Vm/Ng g_{31} : -6.8 x 10⁻³ Vm/Ng g_{15} : 29.8 x 10⁻³ Vm/N.
Mechanical Q: 1200
Data provided by Channel Industries, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Channel-Industries-600-Barium-Titanate-Piezoelectric.php

Physical Properties	Metric	English	Comments
Density	>= 5.40 g/cc	>= 0.195 lb/in ³	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	24.0 MPa	3480 psi	Dynamic tensile strength
	59.0 MPa	8560 psi	Static

Electrical Properties	Metric	English	Comments
Curie Temperature	>= 140 °C	>= 284 °F	
Dielectric Constant	570	570	$K_{T^T₁}$
	625	625	Free dielectric constant $K_{T^T₃}$
Dissipation Factor	0.0030	0.0030	Low Field
Piezoelectric Longitudinal Coupling Factor, k_{33}	0.39	0.39	
Piezoelectric Transverse Voltage Coefficient, d_{31} , 10 ⁻¹² m/V	-33.0	-33.0	
Piezoelectric Shear Charge Coefficient, d_{15} , 10 ⁻¹² m/V	150	150	
Piezoelectric Longitudinal Voltage Coefficient, g_{33} , 10 ⁻³ V-m/N	16.8	16.8	
Piezoelectric Planar Coupling Factor, k_p	-0.270	-0.270	
Piezoelectric Mechanical Q	1200	1200	
Piezoelectric Shear Coupling Factor, k_{15}	0.39	0.39	

Electrical Properties Piezoelectric Longitudinal Charge Coefficient, g ₃₁ , 10 ⁻³ V-m/N	Metric	English	Comments
Piezoelectric Transverse Voltage Coefficient, g ₃₁ , 10 ⁻³ V-m/N	-6.80	-6.80	
Piezoelectric Shear Voltage Coefficient, g ₁₅ , 10 ⁻³ V-m/N	29.8	29.8	
Piezoelectric Transverse Coupling Factor, k ₃₁	-0.160	-0.160	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China