

Material Properties

LEAD ZIRCONATE TITANATE (SOFT)

Type NCE 51

These materials are characterized by relatively high Curie temperatures (>350°C), low mechanical QM factor and high electrical resistivity at elevated temperatures. Type NCE 51 has a high dielectric constant, high charge coefficients and high electromechanical coupling coefficients.

Type NCE 55

This material has a lower Curie temperature, high dielectric constant, and high coupling coefficient.

Ceramics from these compositions are particularly useful in low resonant applications, pressure sensors, accelerometers, receivers, flow meters, NDT, sonic and ultrasonic transducers in air, medical instrumentation, sensitive detectors and actuators.

LEAD ZIRCONATE TITANATE (HARD)

Type NCE 40, NCE 80, and NCE 41

These materials are characterized by relatively high coercive field, high mechanical QM factor and low dielectric loss. NCE 40 has a very low dielectric constant. NCE 40, NCE 80, and NCE 41 are high power and low loss materials.

Typical applications include underwater applications, high voltage generators, high power ultrasonics, e.g. cleaning, welding and drilling devices.