

Material Specification · NCE41

Property	Symbol	Units	Hard Material
NCE41			
Dielectric Constant (1 kHz)	K^T_3		1350
Dielectric Loss Factor (1 kHz)	$\tan\delta_e$		0.004
Dielectric Loss Factor (at 0.4V/mm)	$\tan\delta_e$		0.002
Density	ρ	kg/m ³	7930
Curie Point	T_c	°C	284
Mechanical Quality Factor	Q_m		1400
Coupling Coefficients	k_p		0.57
	k_{33}		0.68
	k_{31}		0.33
	k_t		0.5
Piezoelectric Charge	d_{31}	Coul/N x 10 ⁻¹² (or)	-130
Displacement Coefficient	d_{33}	m/V x 10 ⁻¹²	310
Piezoelectric Voltage Coefficient	g_{31}		-11
Voltage Coefficient	g_{33}	V·m/N x 10 ⁻³	25
Frequency Constants	N_p		2280
	N_t		2000
	N_{ta}	Hz·m	
	N_{33}		
	N_{31}		
Poisson's Ratio	ν		
Elastic Constants Short Circuit	S^E_{11}		13
	S^E_{33}		16
	S^E_{12}	x 10 ⁻¹² m ² /N	-4.1
	S^E_{13}		-5.7
	S^E_{55}		39.5
	S^E_{66}		33.2