

Material Specification · NCE51

| Property | Symbol | Units | Soft Material |
|-------------------------------------|----------------|---------------------------------------|---------------|
| | | | NCE51 |
| Dielectric Constant (1 kHz) | K^T_3 | | 1900 |
| Dielectric Loss Factor (1 kHz) | $\tan\delta_e$ | | 0.015 |
| Dielectric Loss Factor (at 0.4V/mm) | $\tan\delta_e$ | | |
| Density | ρ | kg/m ³ | 7850 |
| Curie Point | T_c | °C | 360 |
| Mechanical Quality Factor | Q_m | | 80 |
| Coupling Coefficients | k_p | | 0.65 |
| | k_{33} | | 0.74 |
| | k_{31} | | 0.39 |
| | k_t | | 0.5 |
| Piezoelectric Charge | d_{31} | Coul/N x 10 ⁻¹² (or) | -208 |
| Displacement Coefficient | d_{33} | m/V x 10 ⁻¹² | 443 |
| Piezoelectric Voltage Coefficient | g_{31} | | 13 |
| Voltage Coefficient | g_{33} | V·m/N x 10 ⁻³ | 26.3 |
| Frequency Constants | N_p | | 1925 |
| | N_t | | 2000 |
| | N_{ta} | Hz·m | |
| | N_{33} | | |
| | N_{31} | | |
| Poisson's Ratio | γ | | |
| Elastic Constants Short Circuit | S^E_{11} | | 16 |
| | S^E_{33} | | 19 |
| | S^E_{12} | x 10 ⁻¹² m ² /N | -4.8 |
| | S^E_{13} | | -8.9 |
| | S^E_{55} | | 49.0 |
| | S^E_{66} | | 43.4 |



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