

## Ceracomp Polycrystalline PZT Ceramics

Ceracomp PZT Ceramics	Soft PZT [CCL]									Semi-Hard PZT [CCM]			Hard PZT [CCH]	
	CCL10	CCL20	CCL30	CCL40	CCL50	CCL60	CCL70	CCL80	CCL90	CCM10	CCM30	CCM50	CCH10	CCH30
$K_3^T$ [ $\epsilon_{33}^T/\epsilon_0$ ]	2,500	3,000	3,500	4,000	4,500	5,500	7,500	9,000	10,000	2,500	3,000	3,500	1,000	1,500
$\tan \delta$ [%]	1.8	2.0	2.0	2.0	2.0	2.0	3.0	2.5	3.5	0.5	0.5	0.7	0.4	0.6
$T_c$ [°C]	300	250	200	180	160	150	130	110	90	250	220	180	300	300
$d_{33}$ [pC/N]	500	600	700	800	950	1,000	1,050	1,200	1,350	450	600	750	250	300
$k_p$	0.68	0.68	0.68	0.68	0.72	0.72	0.7	0.67	0.67	0.62	0.65	0.65	0.6	0.63
$E_c$ [kV/cm]	10	8	7	7	6	6	5	5	5	8.5	7.5	6.5	15	12
$Q_m$	100	100	100	100	100	100	100	100	100	350	300	250	1,000	800