



Typical properties of ceramic materials.

Tekst	Units	Macor	Si Carbid	Si Nitrid	C220	C610	C786	C795	C799	TZP	PSZ
		Glass Ceamic			Steatite	Mulite	High Aluminium Cewramics			Zirconia	Zirconia
Nominal composition	%				MgOSi ₂	62	92	95	99,7	ZrO ₂ +MgO	ZrO ₂ +MgO
Specific density	g/cm ³	2,52	3,05	3,2	2,7	2,7	3,63	3,68	3,85	6	5,5
Water asorption	%	0			0	0	0	0	0	0	0
Hardness	Mohs	4,5				8	9	9	9	8-9	8
Modus of elasticity, min.	Gpa	66,9	350	300	110	100	240	280	300	200	200
Compresicive strength	Mpa	345	1000	3000	850	550	2000	2300	3000	2800	2500
Flexural strength	Mpa	94	300	750	140	120	250	280	300	1000	350
Thermal expansion (20-1000C)	10 ⁻⁶ K ⁻¹	6,3-9,7	4,5	3,2	8	6	6-8	6-8	7-8	10-11	10
Tehermal conductivity (20-1000C)	W/MK	1,46			2-3	3-5	14-23	17-25	20-30	2,2	3
Resistance to thermal schok	Deg.	25-100			100-150	150	140	140	150	210-230	180-190
Max. Working temperature	Deg.	1000	1350	800	1200	1500	1500	1550	1650	13-1400	11-1200
Dielectric strength	KV/mm	40			20	17	15	15	17	9	
Dielectric Constant(20deg. 1Mhz)	-	6,03		20	6	6	8	8,5	9,5	15-17	