

Properties		Material	C799	C795	C786	C830Y	C830M	C935			C910		C920		Quartz	st-37		
			99,7% Al ₂ O ₃	96% Al ₂ O ₃	92% Al ₂ O ₃	Y ₂ O ₃ -ZrO ₂	MgO-ZrO ₂	Si ₃ N ₄	SSIC	SISIC	B ₄ C	AlN	Shapal	BN	MGC	SiO ₂	Steel	
Density (g/cm ³)			3,93	3,72	3,65	6,01	5,6	3,2	3,1	3,2	2,51	3,3	2,9	1,9	2,52	2	7,85	
Bending Strength (kg/mm ²)			40	35	35	90	60	80	40	28	40	30	-	-	-	35	40	
Vickers Hardness (kg/mm ²)			1800	1400	1500	1400	1500	1600	2200	2800	3800	1100	560	13,79-18,95	400	1100	300	
Fracture Toughness (MPam ^{1/2})			3	2,7	2,5	7	8	6	3	2,5	3	3,35	-	-	-		140	
Thermal Shock Resistance (Delta T)			200	200	200	250	400	750	350	350	-	-	-	-	-	-	-	
Working Temperature (°C)			1700	1500	1400	1200	1000	1100	1600	1400	500	1000	1000	850	1000	1000	<1000	
Corrosion Resistance	Acid		Excellent	Good	Good	Good	Good	Good	Excellent	Excellent	-	-	-	Excellent	-	Good	-	
	Alkali		Excellent	Good	Good	Good	Good	Good	Excellent	Excellent	-	-	-	Excellent	-	Good	-	
Merit			High wear resistance High corrosion Resistance High temperature application			High wear resistance High toughness Insulation of temperature		High wear resistance High temp. Strength High thermal shock resistance	High wear resistance High temp. Strength Excellent hardness	High wear resistance High temp. Strength Excellent hardness	High wear resistance Excellent hardness	Thermal conductivity	Thermal conductivity Machinable	Chemical resistance Machinable	Machinable			

The physical properties stated above result from test pieces. These values can only be used as a reference to other forms and dimensions depending on manufacturing process, geometry, surface finish and machining.