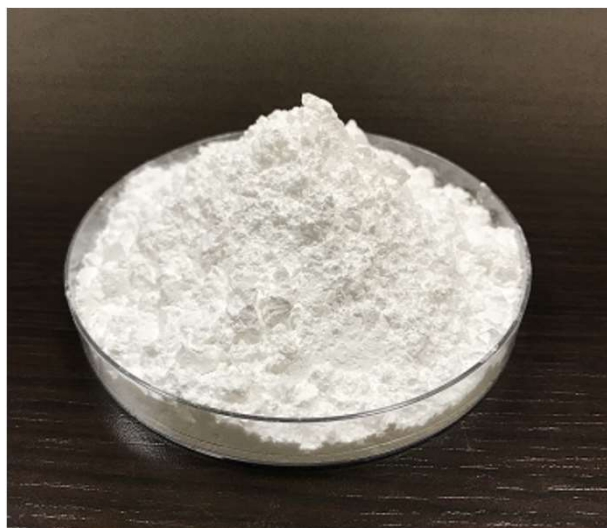
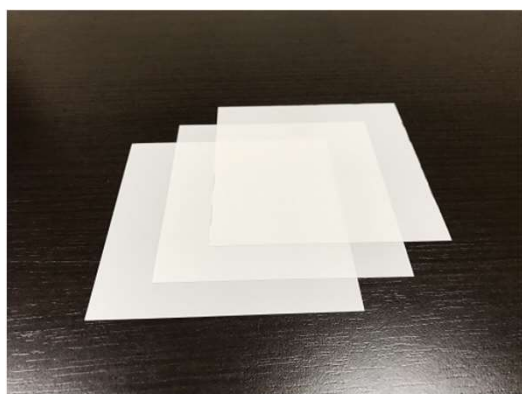


Low Dielectric Loss LTCC Materials



As LTCC materials that can dramatically suppress dielectric loss in the high-frequency band, we have developed three types of materials with different relative dielectric constants: "SK4," "BR03," and "FT7".

Product code		SK4	BR03	FT7	(ref.) GCS71
Dielectric constant (-)	10GHz	3.9	6.1	7.0	6.9
	28GHz	3.9	6.1	7.1	6.9
	40GHz	3.9	6.1	7.1	6.8
	60GHz	3.8	6.0	6.9	6.5
Dielectric loss (-)	10GHz	0.0021	0.0004	0.0007	0.0055
	28GHz	0.0029	0.0003	0.0009	0.0085
	40GHz	0.0036	0.0004	0.0007	0.0076
	60GHz	0.0036	0.0004	0.0005	0.0070
Bending strength (MPa)		100	150	300	250
Coefficient of thermal expansion (ppm/°C)		2.0	7.1	10.0	5.3



You can select materials according to the characteristics you are looking for (dielectric properties, strength, coefficient of thermal expansion).

Relationship between Dielectric constant and Dielectric loss of each material @28GHz

