

2.AIN substrate: characteristics

Characteristics		Unit	AIN				
			170W	200W			
Purity		Wt%	–	–			
Specific Gravity		–	3.3	3.3			
Mechanic Propertie	Vickers Hardness		GPa	10	10		
	Flexural Strength		MPa	>300	>300		
	Young' s Modulus		GPa	330	330		
	Poisson' s Ratio		–	0.24	0.24		
Thermal Propertie	Thermal Conductivity		W/(m*K)	160~180	190~210		
	Specific Heat		J/(kg*K)	0.74	0.74		
	CTE	40-400 deg.C	/°C	4.6×10^{-6}	4.6×10^{-6}		
Electrical Propertie	Dielectric Strength		KV/mm	15	15		
	Vol me Resi tivit	Room Temp.	Ohm*cm	>10 ¹²	>10 ¹²		
		300 deg.C		–	–		
		500 deg.C		–	–		
	Dielectric Loss Angle		1MHz	5.0×10^{-4}	5.0×10^{-4}		
Dielectric Constant		1MHz	8.8	8.8			