

Property Chart - Porous Alumina and Porous SiC

		For gripping, insulating, and weight-reducing			For gripping			
		Alumina						SiC
Item	Unit	AZP50	AZP60	AZP60B	AZPW40	AZPW45	AZPWB40	AZPS40
Porosity	%	50	60	60	40	43	35	40
Pore diameter	μm	5~40	5~40	5~40	50~100	300~1000	50~200	5~30
Bulk density	g/cm ³	1.82	1.57	1.46	2.56	2.4	2.48	1.9
Air Penetration rate	(×10 ⁻¹³ m ²)	0.8	5.73	-	100	-	270	6.1
Purity	%	96	96	-	95	97	90	98
Flexural strength	MPa	91	69	17	76	17	22	90
Dielectric constant	1MHz	4.4	3.4	-	4.1	-	-	320
Thermal conductivity	W/(m·K)	8	6	-	3	-	5	70
Thermal expansion coefficient	×10 ⁻⁶	7.7	7.8	7.7	7.6	7.6	7.6	4.4
	(RT-800°C)				(RT-700°C)	(RT-700°C)		
Max temp. (Atmosphere)	°C	1600	1600	600	1400	1400	600	1400 (Inert atmosphere)
Color	-	White	White	Black	White	White	Black	Gray
Application	Light-reducible	○	○	○	×	×	○	×
	Heat insulation	○	○	○	×	×	○	×
	Vacuum Chuck	×	○	○	○	○	○	○
	Suited application	Light, Heat insulation	Fine surface, Able to grip films and thin wafers.	Suitable for image processing and anti-reflection.	Bubblers	Largest pore diameter	Suitable for image processing and anti-reflection.	Also has properties of AZP60 and the hardest. Partial gripping is possible.
	Filter, Rectification (Air/Fluid), Spraying	×	○	○	○	○	○	○