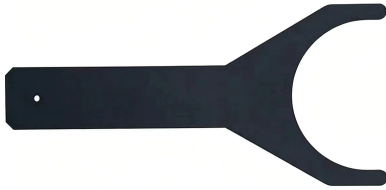


Silicon Carbide Ceramic Arms and End Effectors



Product ID / SKU: FWM/SC-ARM-001

Material: Silicon Carbide (SiC)

Product type: Silicon Carbide Ceramic Component

Silicon Carbide Ceramic Arms (also known as SiC ceramic end effectors or handling arms) are precision components designed for wafer transfer and positioning in semiconductor manufacturing equipment.

Image

AI product illustration - not a product photograph or technical verification reference.

Dense SiC Typical Properties

Property	SSiC - sintered	SiSiC / RBSiC - reaction bonded	Condition
Density (g/cm ³)	≥3.12	≥3.03	-
Apparent porosity (%)	<0.2	<0.2	-
Vickers hardness (HV0.5)	2100	2000	0.5 kgf test force
Young's modulus (GPa)	400	350	-
Fracture toughness (MPa·m ^{1/2})	4-5	2.5-3.5	-
Flexural strength (MPa)	≥400	≥350	25°C
Compressive strength (MPa)	≥2200	≥2000	25°C
Thermal conductivity (W/(m·K))	≥110	≥90	25°C
Mean linear thermal expansion coefficient (10 ⁻⁶ /K)	4.0	4.0	25-1000°C
Typical maximum material temperature (°C)	1650	1300	-