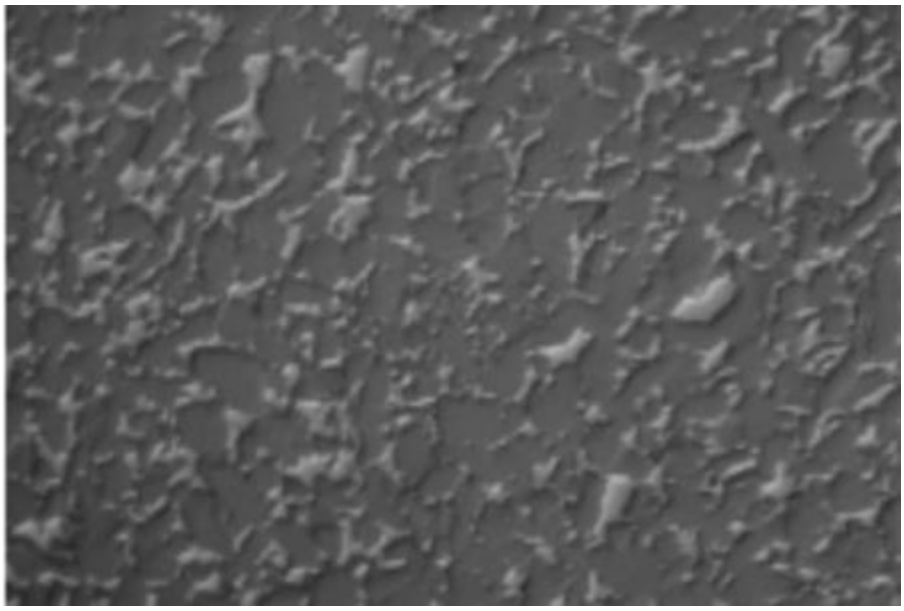
CALSIC RB Reaction Bonded Silicon Carbide Typical Physical Properties



Physical Property	Units	Typical Value
Microstructure	%	87% SiC, 12% Si
Density	g/cc	> 3.02
Open Porosity	%	< 0.1
Max use Temperature	°C	1380
Flexural Strength	MPa	250 @ 20°C 280 @ 1200°C
Compressive Strength	MPa	2500
Modulus of Elasticity	GPa	330 @ 20°C 300 @ 1200°C
Coefficient of Thermal Expansion 20-1000°C	1×10^{-6}/°C	4.5
Thermal Conductivity @1200°C	W/mK	45
Poisson's Ratio	-	0.2
Vickers Hardness	GPa	20-22

All properties are at room temperature (20°C) unless otherwise stated.