



Silicon Carbide

Description: Silicon Carbide (SiC) is a high-performance synthetic abrasive and refractory material with exceptional hardness, high thermal conductivity, excellent wear resistance, and thermal-shock resistance. It retains good chemical stability and mechanical strength at elevated temperatures.

Silicon Carbide is produced by the Acheson process, in which high-purity silica sand and petroleum coke are reacted in an electric resistance furnace at temperatures typically above 2000°C. After cooling, the SiC ingot is crushed, milled, acid-washed or magnetically separated as required, graded by particle size, and packaged into products meeting different application requirements.

It is widely used in bonded and coated abrasives, refractory materials, kiln furniture, wear-resistant components, technical ceramics, metallurgical processing, and semiconductor applications.

Chemical Composition (%)						
Parameter	Req.	SiC 98	SiC 97	SiC 95	SiC 92	SiC 88
SiC	≥	98.5	97.5	95.5	92.5	88–90
Fe ₂ O ₃	≤	0.25	0.3	0.5	1.5	2–3
Free carbon	≤	0.25	0.3	0.5	1.5	2–4
Si + SiO ₂	≤	0.7	0.8	1.0	3.0	4.0
Al ₂ O ₃	≤	0.2	0.2	0.3	1.0	—
Magnetic material	≤	0.05	0.04	0.08	0.10	—

Product Information	
Size	0–1 / 1–3 / 3–5 mm; 8×10 to 35×70 mesh; –200 / –300 mesh; superfines on request.
Packing	In 1.00 MT, 1.25 MT or 1.35 MT bulk bags; 25/50 kg bags in bulk bags or on wrapped pallets.
Origin	Ningxia Hui Autonomous Region, China.