

## SSIC ceramic bulletproof army material plate tiles

### ■ Introduction:

SSIC ceramic bulletproof army material plate tile is a kind of material with high hardness, high strength, wear resistance, high temperature resistance, corrosion resistance and excellent bulletproof performance. The material, which is made of specially treated silicified carbon ceramics, has good impact resistance and bulletproof capability, and can be used to manufacture military products such as bulletproof armor plates, bulletproof vehicles and body armor.

The manufacturing process of silicon carbide bulletproof tiles is very important. The manufacturing process requires the use of advanced production equipment and technology to ensure the quality and performance of products. The manufacturing process includes screening, mixing and molding of raw materials, which are then sintered at high temperatures and precision machined to form bulletproof materials with excellent properties.

### ■ Technical data sheet:

Item	Unit	Data
Density	G/cm <sup>3</sup>	>3.14
Open porosity	%	<0.1
Bending strength	MPa	400-500
Viker Hardness	Kg/mm <sup>2</sup>	2800
Rockwell Hardness	HRA	92
Acid-proof (98% H <sub>2</sub> SO <sub>4</sub> at 100C)	Mg/cm <sup>2</sup> .Y	0.98
Grain Size	nm	<10
Fracture toughness	Mpa	4-5
Silicon Carbide Content	%	>99

### ■ Advantages:

1. Silicon carbide bulletproof tile has excellent wear resistance, impact resistance and corrosion resistance;
2. sintered silicon carbide army material has longer service life than that of reaction bonded silicon carbide ceramic
3. Non - pressure sintered silicon carbide has higher self-lubrication than other abrasion resistant material.
4. Lightweight: Compared with traditional metal materials, silicon carbide army plate is lighter in weight, about half of the weight of steel plate, which can reduce the burden of soldiers.

