



ARMOR CERAMICS

SXR ballistic ceramic systems offer required ballistic protection with the lowest possible weight. For more than a decade, our ceramic solutions have proven superior to conventional materials, through:

- High Hardness
- Low weight
- Uniformity
- Dimensional stability over large temperature ranges
- Compatibility for use in standard armor systems with proven ballistic performance for N.I.J. and other international design standards.

Specifications

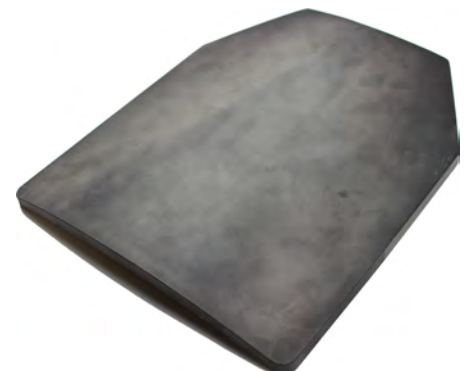
Index	Unit	SSiC	SB ₄ C (BC15 [®])	SiC+B ₄ C (BCS50 [®])
Density	g/cm ³	≥ 3.14	≥ 2.53	≥ 2.72
Hardness	HV1	2480	3000	2800
Flexural Strength	MPa	380	442	420
Compressive Strength	MPa	3910	3890	4100
Modulus of Elasticity	GPa	420	470	480
Weibull Modulus		8	9	9.2
Poisson Ratio		0.14	0.15	0.16
Fracture Toughness	Mpa/m	4.7	4.8	4.92
Coefficient of Thermal Expansion	x10 ⁻⁶ mm/mm°K	4.02	5.1	4.9
Max Service Temp	°C	1650	1060	1200
Emissivity		0.9	0.96	0.85

Our line includes:

- Self-sintered Silicon Carbide (SSiC) Ceramics
- Self-sintered Boron Carbide (SB₄C) Ceramics
- SiC-B₄C Composite Ceramics

Body Protection

SXR offers ultra-lightweight, superior-quality mosaic and monolithic torso plates in a wide variety of shapes, sizes and thicknesses. Complex shapes and configurations are possible for the most demanding protective systems of all body parts. Their highest ballistic protection characteristics combined with significant weight savings are unmatched by conventional solutions.



Vehicle Protection

SXR offers standardized ceramic components such as pellets, hexagons and tiles in both metric and imperial measurements. Customized shapes, thicknesses and configurations can be manufactured upon request. SXR B₄C offers maximum protection while guaranteeing overall weight requirements.



Aircraft Protection

SXR B₄C based composite armor systems offer an excellent lightweight/ballistic protection performance ratio. Tiles and complex geometry parts and panels are available in our product portfolio.



Disclaimer: Many factors, especially but not limited to user's knowledge and control, which are beyond SXR's control, can affect the use and performance of a SXR product in a particular application. User is solely responsible for evaluating the SXR product and determining whether it is fit for a particular purpose or for his or her method of application. User is also solely responsible for evaluating third party intellectual property rights and for ensuring the use of SXR product does not violate any third party's intellectual property rights.

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