**Technical Ceramic’s Brief’s**

SI serves the constantly expanding advanced ceramics sector by offering cutting-edge technical ceramic for Armour Ballistic applications. New product designs push the boundaries of currently available technology and necessitate lighter, more efficient components

Our main goal is to help customers successfully scale up production rates by providing unique technologies that integrate increased flexibility in weight management, operating efficiency, and cost control.

Our certified manufacturing channel partner process these ceramics at controlled and specialised ambient temperatures between 300 and 2400°C, are tailored to each individual Ballistic threat application. With the help of our array of composite know-how, which includes development of fully integrated HAP systems and with turnkey Body Armour solutions.

SI’s NPD experience spans a range of engineering ceramics with extensive experience in designing for the production of silicon carbide . Nitride bonded Silicon carbide, Boron and silicon carbide (B4c+ SIC) , and alumina in gas / electric heating furnace.

As the utilisation of speciality technical ceramics continues to grow through advance Nano technology introduction in Body Armour program, Aerospace, Automobile, Defense, Energy, and bio-medical requirements,

The use of our technology for NBSiC (Nitride Bonded Silicon Carbide) processing best exemplifies SI's breadth of experience across advanced material industries.

In order to help customers achieve business and technical goals throughout the entire ballistic eco system, SI has tied up with ICA to develop unique competence in both ceramics and a complete composite backing system.

We worked closely with Body Armour's programmes. Technical expertise with accuracy. Protocols for ballistic testing and quicker processing techniques and automations. Weight, optimum ballistic area of coverage, addressing performance constraints on BFS with excellent material selections, Vo/V50 penetration criteria, environmental conditioning protocols, and simulating operational scenario prior to ballistic test (tumbling, HAP drop test, wet conditioning) are all factors that go into product design.

For wearer comfort, the style and shape have unique ergonomics and a modular design.

An industry-specific R&D path to commercialization is made possible by a steering committee of our Subject Matter Experts (SMEs) with decades of experience.

If there are any new product development opportunities that we may assist with, kindly let us know.

* Alumina Tile for Add on Armour
* Dimple tiles for Pulley lagging sheets
* WRT Ceramics
* NBSIC Ceramics for various industrial applications
* Mining Cyclone Components
* Cement plant wear plates
* Steel plant & Refractory Klin applications