



CERAMICS FOR ARMOR

800-DIA-WEAR
www.cercocorp.com

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High Energy Absorption Combined with Light Weight
CerCo Structural Ceramics has been an integral part in both military and civilian armor systems. When designed into a composite armor system, CerCo Structural Ceramics utilize planned material fracture to rob the projectile of energy. The lower-energy mass can then be more easily stopped by a thin layer of polymer fabric or metal backing. This type of composite system can be designed to be significantly lighter than all-metal systems and significantly thinner than all-fabric systems of



comparable stopping power. In many cases, a system using CerCo Structural Ceramics is also more cost-effective than an all-metal or all-fabric system.

Consistent Quality

The ability for CerCo Structural Ceramics to predictably absorb impact energy is based on proven batch formulations and robust processes that are tightly controlled to produce consistent parts. By monitoring every step in the manufacturing process, CerCo Structural Ceramics are fully dense and contain virtually no internal flaws. Ultrasonic testing by independent



laboratories has confirmed that CerCo's 99.5% alumina is more consistent and contains significantly fewer internal defects than competing materials.



Flexibility

In addition to producing standard armor tile sizes from two inches square through nine inches square, CerCo can fabricate virtually any shape energy absorber. This capability enables the armor designer to optimize coverage while minimizing weight. For example, tiles can be radiused, drilled, cut, notched, angled or even curved to fit specific space or geometry constraints.



Applications Engineering Assistance

CerCo Structural Ceramics can help you solve your armor components needs. Although CerCo does not design or produce complete armor systems, expert applications engineers are ready to assist you when integrating CerCo Structural Ceramics into your design. After helping choose appropriate materials, CerCo engineers can provide samples, build test prototypes, and scale up for high volume production. For more information about CerCo Structural Ceramics, call: 330-567-2145.



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