



## About OSG

If it's glass, OSG provides it. From transparent armor for defense, security or civilian markets to glass for rail and heavy engineering machinery or automotive and architectural glass, OSG is an established world-leading developer and manufacturer.

Since its founding in 1979, OSG has developed and provided glass for a range of specialized applications. Whether it is light weight compositions – up to 40% lighter than competitors' products – or long-lasting transparent armor, OSG creates the products that meet your needs.

OSG's in-house development and production teams work closely with academic and industry experts to provide a continuous stream of improvements and innovations.

In the United States, OSG is the leading supplier of transparent armor for the MRAP, MATV FHTV, JLTV and several other vehicles of the US Army and the US Marine Corps. OSG has also been involved with more than 40 fielded military vehicle projects around the world, including: HUSKY for the British Army; ZETROS and ACTROS DINGO & MAN for the German Army; Astra for the Italian Army and many, many others.



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# CERALITE

CERALITE is a revolutionary transparent material developed by OSG to protect against all levels of ballistic threats with significantly reduced weight and thickness.



# CERALITE is Lighter & Thinner

**CERALITE** armor is OSG's newest ultra-light solution developed in co-operation with CeramTec of Germany to defeat ballistic threats defined by NATO Standardization (STANAG), US Army-TACOM (Armor/Transparent Purchase Description) ATPD-2352 and other recognized global protection standards.

**CERALITE** transparent armor is **Lighter and Thinner** when compared to "conventional" transparent armor solutions at defined protection levels.

**CERALITE** achieves greater than 50 % reduction both in weight and thickness when compared to traditional glass/polycarbonate solutions.

## Advantage #1

### Weight Reduction

CeraLite offers 40 to 60 percent reduction in weight (areal density) of the transparent armor, with similar reduction of thickness. Reduced weight and thickness of the transparent armor also allows similar (up to 40%) reductions in volume and therefore weight of framing materials, further contributing to overall reduction of gross vehicle weight. Weight reduction provides multiple benefits:

- Enhanced vehicle performance
  - Increased payload capacity
  - Reduced fuel consumption
  - Reduced wear of drivetrain & suspension components, contributing to longer vehicle life.
- Together, these improvements enhance overall vehicle performance and lifecycle.



## Advantage #2

### Elimination of B kit

Due to the light weight of CeraLite, the vehicle can be designed with a single transparent solution which meets all protection requirements, eliminating the need for a B-kit. This innovation provides multiple and significant benefits over conventional designs that require a B-kit.

## Advantage #3

### Reduced life cycle costs of the vehicle

Elimination of B-kit armor represents tremendous cost-saving implications in design, production, operation and maintenance of the vehicle fleet across its entire lifecycle.

## Advantage #6

### Increased Multi-Hit Capability and Driver Vision

CeraLite has been proven to perform 50 to 100% more efficiently against multiple strikes / impacts. After initial impacts from projectiles, subsequent ballistic resistance in non-impacted areas of the transparency is superior to that of traditional,

## Advantage #4

### Longer vehicle life cycle

Not only do these advantages reduce vehicle operating costs; reduced weight imparts less stress on suspension and drivetrain components, contributing to longer lifecycle of the vehicle itself.

## Advantage #5

### Improved Light Transmission & NVG capabilities

Reductions in thickness of the transparency - up to 50% while maintaining ballistic performance - allows improved light transmission. This enhances situational awareness, including improved performance of night vision equipment.

**CERALITE:** transparent armor of the future, available today.