BAE Systems offers a wide range of unique and lightweight ceramic, transparent and soft aircraft armor solutions for fixed-wing and rotary-wing aircraft.

BAE Systems prides itself on over 30 years of experience in developing and manufacturing lightweight composite armor protection systems for military aircraft. Utilizing our expertise in ceramic composite armor, BAE Systems introduced the first successful military armored crashworthy crew seat for the UH-60 Black Hawk aircraft in 1977.

KEY FEATURES
• Monolithic armor technology accommodates curvatures and saves weight
• Variety of armor systems available to meet specific requirements
• Industry leader in integration and qualification of complex armor systems meeting stringent crash, environmental and impact requirements
• Lightest weight ceramic armor technology available
• Unmatched transparent armor technology

Aircraft Armor Systems
In 1998, we first applied monolithic ceramic armor to our Small Arms Protective Inserts, developing protective body armor for our warfighters. Since then, we have used monolithic ceramic technology to develop the new UH-60M seat bucket, as well as other next-generation armor systems.

With on-site modeling, analysis, testing and Research and Development capabilities, BAE Systems continues to distinguish ourselves by introducing leading-edge, lightweight composite armor technologies. We offer custom-tailored armor solutions; from concept to production, our applications range from seats and structural components to integrated fuselage and floor armor.

TRANSPARENT ARMOR
BAE Systems has developed, patented and is producing a new liquid-castable transparent polyurethane, Cleargard®, which provides superior ballistic performance with optimal clarity. Cleargard’s advantages are characterized by:

- Unmatched monolithic performance
- Lower density than acrylic or polycarbonate
- High-impact resistance
- Excellent optical clarity
- High ductility
- High thermal and chemical resistance
- Compatible with a variety of dye packages and coatings
- Castable to complex shapes or sheet form

**STANDARD ARMOR FEATURES**

- Lightest weight and lowest areal density (weight per unit area) in the industry
- Defeats Armor Piercing (AP) threats for 7.62 mm and greater calibers
- Complex curvatures, unusual shapes as well as flat components
- Flexibility for hole size and location
- Wide variety of qualified mounting/attachment methods
- Environmentally tested to MIL-STD-810
- Meets FAR 25 flammability requirements
- Secured for crash and impact loads

**THE MONOLITHIC ADVANTAGE IS CLEAR:**

Monolithic Curve 1 Tile

<table>
<thead>
<tr>
<th>Material Comparison</th>
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<tbody>
<tr>
<td>Monolithic Tile:</td>
</tr>
<tr>
<td>• Same Ballistic Effectiveness</td>
</tr>
<tr>
<td>• 6% Less Material</td>
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</tbody>
</table>

C-130 look down window

**COMPREHENSIVE DEVELOPMENT CAPABILITIES AND HIGH VOLUME MANUFACTURING**

- Armor and composite production areas encompass more than 100,000 ft²
- Work is completed by a team of skilled technicians trained in composite fabrication techniques and specific product requirements
- Armor pre-fit and bonding operations
- In-house ballistic test laboratory
- In-depth understanding of aircraft integration and qualification requirements

**MONOLITHIC ARMOR**

Our monolithic ceramic technology allows for:

- Minimum amounts of material for reduced weight
- Elimination of raised edges and joints
- Minimized parts counts and costs
- Retained multi-hit performance

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