

Helicopter / Aircraft Survivability

Ballistic foam providing a barrier between spark and fuel

Placed in the dry bays of aircraft, ballistic foam provides a barrier between the spark and fuel. As bullets or shrapnel penetrate the mold line skin surrounding the outermost portions of the dry bay, the ballistic foam deprives the sparks of oxygen. Thus, when the article punctures the fuel tank, fire does not arise. Not only does the foam displace oxygen, but all gases, including explosive vapors which could magnify the destructive effects of the attack. The dry bays may also contain "onboard ignition sources" like hot surfaces and electrical sparks which benefit both from a lack of gases and the fire-retardant nature of the foam.

Ballistic foam strengthens aircraft by protecting it from fire as well as fluid while adding little weight. Fluid protection involves resisting damage from moisture, hydrocarbon fuels, hydraulic fluids, and most common solvents. Chopped fiberglass strands embedded in the foam contribute structural integrity through physical support and shrapnel mitigation. The stratum that strengthens the foam in turn strengthens the airframe. The fiberglass also prevents shrapnel and bullets from rupturing and removing parts of the foam. It then allows the damage caused by projectile penetration to heal more effectively.



The passive protection afforded by ballistic foam is inexpensive, simple, requires no maintenance, and is always available. Other methods of protection such as filling large dry bays with inert gases or powder panels which will not sustain a flame, are very expensive and complex, and only offer a "one time" chance for ballistic protection while the ballistic foam is always available. Survival Systems International (SSI) has manufactured Ballistic Foam, Ballistic Foam assemblies, and aerospace assemblies for helicopter/aircraft survivability for over 30 years. In that time, over 400,000+ parts have been manufactured for 8 different manufacturers.

- ✔ **Simplicity** - Passive, efficient, cost-effective protection against ballistic attack.
- ✔ **Manufacture and Design** - Foam is processed, CNC machined and formed to meet customer requirements
- ✔ **Weights and Dimensions** - Standard foam densities include 1.8 lbs/ft³ and 2.5 lbs/ft³. Other densities are available. Limitless dimensions.



We're here to help