Fugard™ Explosive Proof Fuel Tank Foam

The fuel tank is one of the most vulnerable parts of armored vehicles and aircraft. In a fuel tank, the empty space above the fuel level contains an explosive mixture of fuel vapor and air. Any gunfire or penetrated fragmentation will ignite vapors around it and create an ever-growing compression wave to compress the un-ignited vapor in a chain reaction, which finally leads to a fatal and catastrophic explosion within milliseconds.

Fugard™ Explosion Proof Foam can virtually eliminate such a catastrophic explosion and drastically increase the survivability of armored vehicles and aircraft. It is a flexible network of structured polyurethane foam with fully open pores, composed of pentagon and dodecahedron skeletal network of tiny lightweight interconnecting strands, which act as a 3D fire screen. The foam confines the vapor ignition to the area around the ignition source and prevents the chain reaction from occurring. Flame and wave propagation are mitigated by the foam to below propagation levels.