

Self-Sealing Fuel Tank

AAE designs and supplies high-performance fuel tank protection systems utilising self-sealing polymer technologies engineered for defence applications.

Upon ballistic or fragmentation impact, the coating activates to rapidly seal penetrations, preventing fuel escape and reducing fire risk.

System benefits:

Reduced vehicle weight for improved mobility

Better fuel efficiency

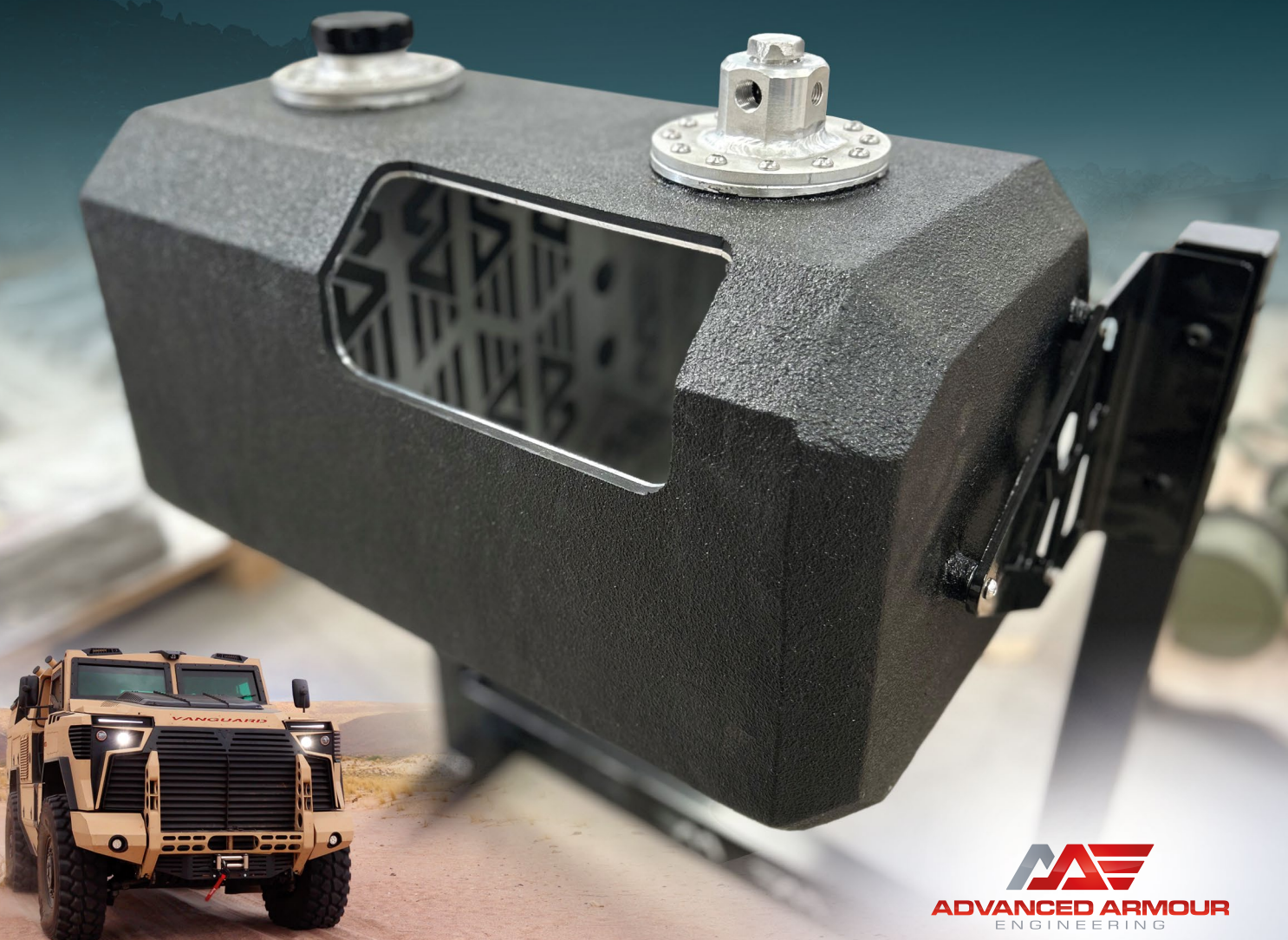
Minimized wear on suspension components

Available integration into:

New vehicle programs

Platform modernization projects

Legacy tank protection upgrades



SPECIFICATION

Superior Protection: Protects against 30 caliber small-arms, 14.5mm ballistic threats, and 50kg mine blasts.

Self-Sealing Technology: Innovative self-sealing capability ensures minimal leakage and sustained operation under fire.

Blast Resistance: Resilient to close proximity blasts, safeguarding fuel tanks from catastrophic damage.

Durability: Multi-layer coating system enhances tank integrity and longevity.

Proven Performance at STANAG Levels: Successfully meets STANAG 4569 Level IV standards.

Key Features

Multi-Layer Coating System

Topcoat for superior finish and protection.

MEP Encapsulation Layer for self-sealing and durability.

Basecoat for added strength and adhesion.

Metal Substrate for robust tank structure.

Self-Sealing Capability

Effectively seals entrance holes from 14.5mm ballistic threats.

Reduces leakage, maintaining fuel integrity.

Blast Resistance

Withstands 50kg mine blasts, ensuring tank survival and functionality.

Enhances the structural integrity of fuel tanks during explosive events.

Proven Performance

Ballistics Tests

Survived 14.5mm threats with minimal leakage at a 19mm coating thickness.

End caps require 28mm coating thickness for optimal performance.

Effective self-healing for entrance holes from any angle of impact.

Meets STANAG 4569 Level IV ballistic protection standards.

Mine Blast Tests

Successfully endured 150lbs TNT charge at 5 meters with no noticeable damage.

Demonstrated superior resistance in close proximity mine blasts.

