

# Convert or Customize your Fuel Tank with Specialized Protection

## Implementing your Needs

We can refit your existing vehicle or customize and manufacture an entirely new protected tank to cater to your individual specifications. You can opt for protection with our distinctive self-sealing composite, anti-explosion mesh or both.



Armored tanks



Jet plane



Fuel tank



Rail tankers

## QUALITY ASSURANCE

### Engineering Safety, Minimising Risk

We bring our resources together to engineer maximum safety, security and survivability.

It is our primary concern to ensure each and every tank is 100% tested for fitment and leakage in ascertaining their safety.

All raw materials used in the application or manufacturing process are subject to stringent inspection and certification.



### Sales Contact Integrated Engineering Solutions



Ascendon Engineering Pte Ltd

#### Ascendon Affiliates

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# Empowering Defence, Protecting Lives

Self Sealing and Explosion Suppression Fuel Tanks

## Achieve Maximum Protection Intelligent Preventive Measures

Ascendon is dedicated to the continual improvement of engineering safety and security by harnessing the latest technologies to increase military mobility and offer increased life-protection.

Military vehicles are highly vulnerable to various security threats inclusive of gunfire punctures, terrorist attacks and other heavy impact damage and are exposed to the dangers of fuel leakage or a catastrophic explosion. These result in severe casualties which can be prevented by ensuring sufficient protection that enhances the endurance of your vehicle performance and increases the lifespan of your crew.

Safeguarding them against such unpredictable military hazards is critical and must be met with the most reliable protective measures.

## Protect your Fuel Tanks with our Self-sealing Composite Instant immunity

Acting as a "second skin" or defensive layer, this composite has the intuitive ability to sense a puncture and seals the holes or cavities immediately to prevent leakage. It has been applied effectively to fuel tankers, armored vehicles and all terrain vehicles for war operations in the middle east.

- ABRASION-RESISTANT
- ADVANCED COATING TECHNOLOGY FROM USA
- EASY-APPLICATION
- ENVIRONMENTALLY-NEUTRAL
- IGNITION-PROOF
- SELF-SEALING
- WEIGHT-REDUCTION

|                                   |   |
|-----------------------------------|---|
| <b>Performance:</b>               |   |
| <b>Stops leaks from punctures</b> | Up to a 7.62 mm (30 Cal) round or 12mm (50 Cal) dependant on thickness of coating and composite |
| <b>Specifications:</b>            |   |
| <b>Thickness</b>                  | Min. 1/2" ~ 3/4" ( 12.7 mm ~ 20mm ) dependant on hole protection level                          |
| <b>Weight</b>                     | Approx. 3 to 5 lb. per sq feet (based on 30 cal)  |
| <b>Application method</b>         | By high temperature , high pressure spray-on  |
| <b>Patch kit</b>                  | Available for large hole repairs  |



Process of self sealing after bullet penetration

## Safeguard your Fuel Tanks with Explosion Suppression Proof Mesh Direct defence

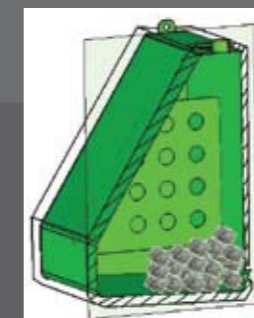


Globally recognized explosion elimination system - eXess, is a simple but sophisticated system that protects your fuel tanks from explosions. eXess consists of a thin mesh that is made of a special aluminium alloy with a huge surface area and optimal heat conductivity.

Heat is reduced at such high speed in the case of an open fire or when ignited, that burning is slowed down to a minimum and an explosion is prevented as sufficient temperature and pressure cannot be attained. The eXess mesh fills up only 1.4 to 1.7% of the tanks.

eXess explosion-proof systems protect the environment while safeguarding people.

- ANTI-BLEVE
- ANTI-EXPLOSION for COMBUSTIBLE LIQUIDS
- ENVIRONMENTALLY-FRIENDLY
- FLAME-RETARDANT
- HIGH QUALITY ALUMINIUM MESH FROM AUSTRIA
- INCREASED DRIVING SAFETY
- INCREASED VEHICLE SAFETY
- POLLUTION REDUCTION



Cross-section of fuel tank with eXess



eXess product



Live firing proof test



Coating process



Cross-section of fuel tank