



## SKYDEX shock mitigation products: armour enhancement

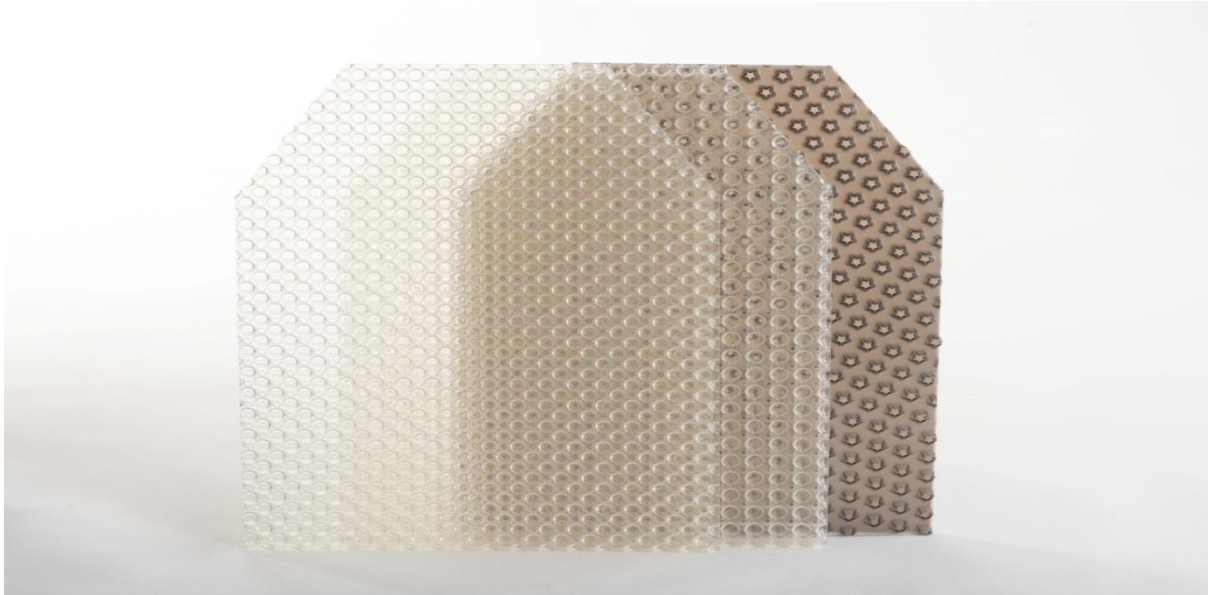
As part of its mission to deliver high-quality mobility products for armoured vehicles under the harshest of circumstances, TSS International BV has recently seen an increase in deliveries of *SKYDEX* Original Threat floor mats, protecting occupants of armoured vehicles against the damaging after-effects of an under-vehicle IED detonation. The Toyota Land Cruiser 200 continues to be a popular civilian platform to make use of the extremely light-weight and effective shock mitigation products.

When an armoured vehicle is struck by an under vehicle explosion, a series of events is initiated. First of all, the steel floor protects the occupants from the shrapnel resulting from the blast. As a consequence, the floor moves upward at extreme speeds, transferring a large portion of the explosive force into the feet and lower legs of the passengers. The energy and speeds are so immense, that the human body has no time to react to them, resulting in severe injuries. In many cases, the force of the blast elevates the vehicle from the ground surface. The vehicle quickly lands back on the ground, which slams the occupants back onto the same floor that just so recently caused the incapacitating injuries.



*SKYDEX* shock mitigating mats for armoured vehicles contribute to the safety of the passengers and crew by compressing upon impact and absorbing a large portion of the kinetic energy. Up to 90% of this destructive force can be reduced, as has been observed

in more than 25.000 in-theatre vehicles, countless laboratory tests and validations, as well as multiple IMPETUS simulations. TSS has even helped clients pass certification tests according to STANAG Explosion Resistant Vehicle (ERV) Level AEP-55 volume 1 and 2 tests, by quickly supplying the right type of material for the requirements.



*SKYDEX* shock mitigating floor mats are available in different configurations and thicknesses, to meet different levels of threat. As *SKYDEX*' official European Distributor, TSS International is at your disposal to deliver results.

In addition to protection in armoured vehicles, TSS now also offers personal protection, by means of trauma protection plates for use in body armour and ballistic helmets.

The trauma protection for body armour consists of extremely thin and lightweight panels that absorb the kinetic energy of a direct projectile hit on body armour, reducing the likelihood of for example rib cage injury or internal bleeding. Positioned between the armour and the upper body, it acts as a buffer to help protect the user against injury, whereas the vest protects the user against the ballistic threat.

*SKYDEX* trauma protection for body armour:

- Lightweight;
- Up to 3.5mm thin;
- Back Face Signature (BFS) reduction of up to 60%!
- Multi-impact resistant;
- Hygienic and easy to clean;

Similar protection is also available for ballistic helmets. The impact of a bullet on a ballistic helmet can cause concussion or even brain injury. *SKYDEX* has developed an easily fitted set of energy absorbing pads, protecting the head from impact of the helmet after a ballistic hit and combined it with the best fitting helmet adjustment product in the market to make *SKYDEX* IsoFit Helmet Protection System!



Specifically for special forces, using equipment like night vision goggles, IsoFit makes helmets better, by offering a one-handed, dial-adjustable custom fit. Instead of clamping on the front and back of the head, comfortable and stable fit is achieved by a three-dimensional, 360° adjustability.

*SKYDEX* IsoFit Helmet Protection System: join the future of helmet protection.

- Unparalleled and combat proven helmet protection
- Hygienic and easily-cleaned inserts
- Multi-impact protection
- Unmatched fit and stability, even with helmet equipment installed
- 1-hand adjustment: 3D fit.

Of course, TSS International will continue to provide high-quality mobility products for armoured vehicles, such as the Toyota Land Cruisers 200 and 300, MB G-Class, Nissan Patrol Y62. For flat tyre mobility, improved braking power and vehicle handling, self-sealing fuel tanks and discretely installed vehicle intercoms, turn to TSS!