

d3o™ Lab awarded MoD contract to develop shock absorbing material for the forces of the future

2nd March 2009

As part of the MoD's new Defence Technology Plan launched by Minister for Defence Equipment and Support, Quentin Davis on the 26th February, Brighton based d3o™ Lab have been awarded a funding contract of £96,000 to develop the use of their shock absorbing material in military helmet liners.

d3o™ is a intelligent shock absorbing material with unique qualities as a result of the Intelligent Molecules it is composed of. At slow speeds the molecules flow freely past each other allowing the material to be soft and flexible, however when forced to move quickly – like in an impact – the molecules lock together to spread and absorb the force of the impact.

The Defence Technology Plan is the first time the MoD have unveiled its long-term research needs, and underlines the importance of science and technology in providing cutting-edge kit for the battlefield. d3o™ Lab gained access to the funding through the MoD's new Centre for Defence Enterprise (CDE) scheme. The CDE is a gateway into the MoD for anyone with a new technology or product idea that can be used in defence activities.

The utilisation of d3o™ in helmet liners intends to reduce the damage caused by ballistic impacts, Improvised Explosive Devices (IED), and other impacts by significantly diminishing the amount of energy transferred through the helmet to the head of the wearer. Whilst not stopping the penetration of a bullet alone, the deployment of d3o™ in a composite solution will significantly reduce injuries in this area.

Lt Col RM Paul Kearney present at the launch event in Whitehall last week had high hopes for the material's use in the military field:

“Your body gets a real hammering on operations in Afghanistan, particularly your knees and elbows as you dive from one fire position to another. This technology looks like it could maintain your flexibility whilst reducing the constant impact that degrades you day by day, helping us to operate longer and in more extreme conditions. This could be a real benefit to soldier in the future.”

Utilising d3o™ directly supports the MoD's capability vision to reduce the burden on the dismounted soldier to a maximum of 25kg whilst maintaining and improving protection levels. d3o™'s qualities of lightness and flexibility will reduce the weight a soldier carries for protection, as well as increasing his or her freedom of movement which is so important for field operations.

While initially focusing on helmet liners, the unique properties of d3o™ make it relevant for numerous military applications for potential future developments, and d3o™ Lab are also hoping to secure a further development contract to look at integrated protection into clothing.

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Established in 2001 by CEO Richard Palmer, d3o™ lab invented and manufactures a revolutionary material for flexible shock absorption called d3o™ technology. d3o™ is a patented, shock absorbing material with Intelligent Molecules that flow with you as you move,

but on shock, lock together to absorb impact energy. These qualities make it perfect for any application where you need total freedom of movement as well as high levels of shock absorption.

d3o™ entered the commercial market at Olympic level with the Spyder GS race suit, developed for and worn by the US and Canadian ski teams in the 2006 Winter Olympics in Turin. The suit was available in retail the following season with a host of other snow sports products, and since then d3o™ has been utilised by brands coveted by innovators in the sport and industrial markets including SixSixOne, The North Face, Helly Hansen, and CAT Footwear to bring protective clothing and footwear to market for ski and snowboard, mountain biking, motorcycle, work wear, and more. The material has received Worldwide interest and was recently awarded a CDE development contract focused on developing the use of d3o™ in military helmet liners.

The d3o™ team consists of engineers, chemists, designers, operations, sales and marketers all based at the HQ in Hove, UK.

For more information go to www.d3o.com or contact Charlotte Gough, +44 (0)1273 739410 charlotte@d3olab.com.