



## Scancan Technologies

### **Using Scancan™ Technologies To Reduce The Risk of Brain Concussion In Sport And In The Military**

**Scancan™ helmet liners have been proven to significantly reduce the risk of brain concussion because of their ability to absorb and transmute the gamma radiation released by shock waves caused by collisions directly into safe quantum particles like the electron, the proton, W and Z bosons.**



**The quantum energy-related components of the Scancan™ helmet liner shown above help prevent shock waves, aka gamma radiation, from penetrating the skull where they are known to cause damage to the brain's grey and white cells that can lead to CTE, MTBI and even AD.**

#### **Background**

**Collisions in sport and/or explosions in the military have caused brain damage to individuals for hundreds of years. The reason for this is that collisions and/or explosions release powerful shock waves with energy in the gamma region of the electromagnetic spectrum. Gamma radiation is deadly and can cause permanent damage to the brain.**

**Collisions in professional football or in ice hockey, for example, release up to 3,000 Joules of kinetic energy. This amount of energy corresponds to very powerful, life-threatening gamma radiation.**

#### **A Way Forward**

**Scancan™ helmet liners contain a rare form of pure white, shocked, piezoelectric quartz powder, a titanium catalyst and pure graphite powders all embedded homogeneously inside a pure medical-grade silicone resin. This unique combination enables the helmet liner to absorb shock waves and transmute their energy directly into electron-positron pairs and W and H bosons. This process that was proven in**

CERN in 1983, for which Carlo Rubbia and his team were awarded the 1984 Nobel prize in Physics.

### **Physical Description**

The Scancan™ quantum helmet liner is ca. 3 millimetres thick and weighs approximately 200 grams. It is washable, long lasting, and comfortable to wear. Twenty aeration holes at the top of the liner guarantee sufficient air circulation in the scalp area. Graphite in the liner makes its inner surface smooth and frictionless.

### **Official Test Results**

Official tests were conducted at laboratories of the Sarrocchi Technical University College in Siena, Italy over 30-month period - see report attached. These tests repeatedly confirmed that up to 30% of the shock waves released during a collision involving a steel ball falling one metre (equivalent to 80 Joules or  $5 \times 10^{20}$  eV) onto a helmet could be absorbed and attenuated by the Scancan™ helmet liner.

### **Conclusions**

When worn inside a helmet, QHLs reduce the risk of concussion and brain damage by preventing powerful gamma radiation released during a collision from penetrating the skull and entering the brain where damage to grey and white cells usually occurs. This also greatly reduces the risk of long-term CTE, MTBI, and Alzheimer's (AD).

### **The Scancan™ Test Rig and Test Results**

Below please find: a) a picture of the Test Rig used to measure attenuation levels absorbed by our Scancan™ helmet liner under vertical impact forces; and b) copy of the Official Test Report signed off by the Sarrocchi Technical University's Team of Experts.



**As shown above, the impact force was created by an 8 kg steel ball falling one metre directly onto a motorbike helmet both with and without a Scancan™ helmet liner inserted inside the helmet. Test results follow.**

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**PROVE PIFA (PIEZOELECTRIC IMPACT FORCE ATTENUATOR)**

PESO IMPATTO - 8 KG / ALTEZZA - 1 METRO / FORZA - 80 JOULES

**Imbottitura PIFA: Campione di controllo - polvere carbone (1)**

Peso Imb.	Prova No 1A	Prova No <del>1B</del> 1B	Prova No <del>1C</del> 1C
134 g	20	20	X
135 g	18	19	19.5
136 g	19.5	20	20
Media	20		

**Imbottitura PIFA: Campione di SuperQuartz (2)**

Peso Imb.	Prova No <del>2A</del> 2A	Prova No 2B	Prova No <del>2C</del> 2C
135 g	18	18	19
136 g	15.5	17	16
137 g	18	17	X
Media	16.5		

**Imbottitura PIFA: Risultati Finali**

Attenuazione media: 17.5% / Attenuazione max: 22.5%

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