



Leading the Field with Unique *Dri-M Technology*



## Dri-M technology

### **Dynamic**

The constant ability to move with, and mould to the riders body shape

### **Reactive**

Massive energy absorption, tested and proven

### **Intelligent**

Breathable, heat reactive and the ability to withstand multiple impacts



DYNAMIC  
REACTIVE  
INTELLIGENT  
MATERIAL

***Over 25 years experience  
CE Tested to the highest levels  
Repeat Performance Technology  
Heat Reactive materials  
Breathable  
Multi layer  
3 dimensional Moulding  
Flexible  
All day wear-ability***



ANTI-UV



ANTI-BACTERIAL



THERMAL



MACHINE WASH



WICKING



FLEXIBLE  
LAYERING  
SYSTEM



HEAT  
ACTIVATED



BREATHABLE



SOFT &  
COMFORTABLE



LIGHTWEIGHT



RPT - REPEAT  
PERFORMANCE  
TECHNOLOGY



HIGH ENERGY  
ABSORPTION



DYNAMIC  
REACTIVE  
INTELLIGENT  
MATERIAL

## ***Forcefield Body Armour Sales Guide***

### **History. Since'88**

Forcefield Body Armour, in one guise or another, has been manufacturing soft armour, and has pioneered soft armour technology.

While most other manufacturers claim to have invented armour, we were quietly going about our business, confident we were doing the right thing, investing and evolving what has become the best armour system in the world.

Both then and still now, having to go against the fashionable trends and explain the benefits of Forcefield soft armour, against hard armour.

After many awards, we are now recognised as the original soft armour manufacturer making the world's highest performing and comfortable body armour.

Over the last few years we have extended our range with new products aimed at riders who appreciate they need to be protected, but who do not want to wear bulky ill fitting and uncomfortable armour.

### **How good is Forcefield?**

Straight forward and honest, with firm results to prove and back up the product. Some hard Facts.

#### **Forcefield Body Armour is technical in its nature-**

Higher performing, more expensive Nitriles are widely used, rather than cheaper inferior lower cost based products.

#### **A simple and honest product to sell. It needs no exaggeration, it really does do what it is supposed to do**

- The CE tests are proof of this- Hand on heart you can sell this as the best on the market. Independently tested.
- Pro Sub 4 Back Protector CE Level 2. At 3.38kN- World highest performing back protector- No question
- Just because we put armour away in pockets, does not mean we compromise on safety. The Pro Shirt Back Protector passes the CE Level 2 test at 4.04kN. The highest performing back product in any aftermarket clothing garment.
- All Motorcycle Forcefield CE level 2 back protectors pass comfortably at under 9kN.

## Comfort, and true all day usability

Used by multiple World Champions, Dakar riders, and professional riders worldwide.

## Dealers enjoy selling it as it is a true quality product

Now Tested Proven and Trusted. High quality, very few returns and an honest and reliable brand and product.

### Forcefield Technology.

At the heart of the products are our Dri-M materials.

These include Nitrex Evo and specially formulated with added memory formulation PU. It has taken many years to get the balance of the material right, soft and comfortable, yet the best impact performance available.

Using unique formulations (top secret) combined with custom layering systems, and the triangulated waffle pattern, we can achieve unrivalled performance.

### How? The Technical Part

Forcefield armour harnesses energy, slows it down and manipulates it into a lesser force before it hits your body.

By comparison hard armour simply deflects the energy, giving poor test results, and not performing well in impacts- this is now proven and recognised.

Where applicable Forcefield Body Armour product is made using a combination of triangular grid material and vented nitrile.

The triangular shape we create is the 'mechanics' behind the high performance, the other important element is the formulation and technical layering system used. This offers outstanding performance characteristics.

Poor materials when impacted will compress too much allowing too much energy to pass through; it's what we call "bottoming out". It bottoms out without doing its job and is effectively useless!

You could say a very hard material when impacted will not compress so this would be good! But this isn't the case either as they will transmit energy directly through and not absorb any energy at all. So you get materials that are too soft and too hard.



## **Forcefield- Ideal Materials**

The ideal material is one that on impact compresses to a degree but then returns to its original shape and size. This means that you are maximising the length of time so that as much energy as possible can be absorbed.

On impact you are trying to delay as long as possible the moment of peak transmitted force. This force does damage to the body. So the better the material the longer this moment is delayed. The time is measured in milliseconds. Our Material slows the moment of peak transmitted force and spreads the damaging forces over the whole surface which means that the material is used to its maximum.

### ***As it is hard, it protects, right?***

Wrong. It has very little ability to absorb, or slow the energy of an impact down.

Harder materials are hot, unable to breath, uncomfortable and can crack, causing further injury in a crash.

To back this up you can use a modern day example of a crumple zone on a car, designed to slow the impact energy down. Protecting the people inside the car.

So, crumple zones/honeycomb type systems are good for body armour? Well, only as far as one impact goes.....Forcefield Armour is engineered for multiple impacts and benefits from repeat performance.

## **Repeat Performance Technology**

Multiple impacts are not good for the vast majority of armour on the market. Forcefield armour has been designed to withstand multiple impacts. Most armour types deteriorate after an impact making it un-usable and ready for the bin- not Forcefield.

In a serious high speed crash where multiple strikes take place in the same incident, normal armour is getting weaker, at the time you need it to be strong. Forcefield armour is as strong at the end of the crash as it was at the beginning. Giving the wearer the best possible chance.

**A test was simulated and 20 impacts were struck at the CE test figure of 50J in one place on a Forcefield Pro L2 Evo back Protector, Even at 20 impacts, the average impact reading was good enough to pass at under 9kN- CE Level 2! Outstanding.**

### **Does it go hard on Impact? Get the message right!**

Our unique molecular structure means that the armour maintains its soft shock absorbing characteristics, and does not go 'hard on impact' as some other brands claim. This is the last thing you want armour to do as hard armour cannot absorb energy before it hits the body.

**Do you want your suspension forks to lock out when you hit an object? No is the easy answer!**

## Material Characteristics

### Soft, 3d Mouldable, Heat Reactive, Breathable and non-restrictive design.

After wearing for a short period of time, the armour custom moulds itself to the wearers body shape- therefore creating not only a 2 dimensional shape of the body shape, but a 3 dimensional, moulding in all directions, wrapping perfectly around the body, becoming a part of the wearer. Most importantly it has the ability to move and flex with the person wearing it also, not restrictive in any way, it becomes a second skin.

This is important in the unlucky event of an impact/crash.

Imagine wearing a helmet that did not fit- and on impact had gaps between the inner shell of the helmet and the head- this space is dangerous and more than likely to cause further damage to the body. Most conventional body armour is like this. Forcefield, is close fitting, slim and part of the body.

### Breathable

Each garment we make is perforated with many holes to ensure the heat can pass through the product, maintaining body comfort at all times.



#### CE standards.

The CE test standards are regarded as the world's most in-depth and rigorous standards.

From day one, we have been guided and in some cases pivotal in pushing standards further and making sure product in the market place continues to improve. This is something we are extremely proud of, and will continue to work with.

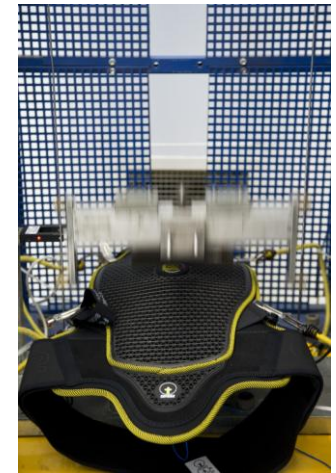
To understand more about Joules and Kilo Newtons-

#### A Joule (J)

This is the amount of energy that strikes the protector when tested.

#### A Kilo Newton (kN)

A KiloNewton is a measure of the amount of TRANSMITTED FORCE that could enter the body following an impact. It is the amount of transmitted force which can determine the severity of the injury when receiving a direct blow.



## What is the CE test? In the case of the back protector. En1621-2

A force of 50J is applied to a back protector, and the transferred energy (The force that hits your body) is measured.

The CE level 1 test is passable at equal to or less than 18kN. The Level 2 test gets harder- and must pass at equal to or less than 9kN.

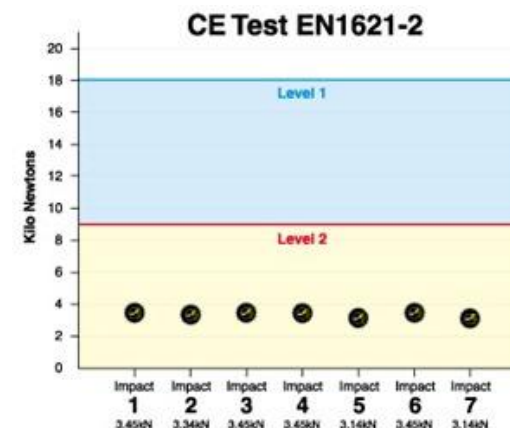
Our Pro Sub 4 Back protector, has smashed the competition by independently passing at 3.38 kN The world best performing back protector! The Pro Shirt has a back protector (CE Level 2) that comes in at just over 4kN.

Limb protector standard (En1621-1) must transmit 35kN or less for CE level 1, or 20kN or less for Level 2.

Mandatory CE tests are Ambient and Wet conditions, extreme high and low temperature tests are optional.

En1621-1 (Limb Armour) Level 1 and Level 2

En1621-2 (Back Armour) Level 1 and Level 2



The graph here shows the results for the Pro Sub 4. 7 impacts. 1 winning result.

## Is all armour CE Tested?

We know of many sub standard protectors on the market.

### Important-

If a product is called a guard, pad, or shield, the chances are it has not passed the correct motorcycle CE test and cannot lawfully carry the CE mark as a protector. It might still have a CE mark, but also check the motorcycle symbol is visible. These should not be sold as protection, they do not pass the standards, and do not perform.

## What is Forcefield like to use?

Genuinely you do not know you are wearing body armour, this means you can get on with riding- without being bothered by ill fitting, hard uncomfortable armour. You can concentrate on the job in hand, making sure you remain concentrated and less likely to crash.

Body armour that does not fit and is uncomfortable is exactly the same as a pair of bad fitting shoes- you tend not to wear them! For this reason from the initial design of any of our products we make sure the products fit and are enjoyable to wear for long periods of time.

## **In Store Sales**

Tried and proven methods are to get the customer to try the armour on.

Almost straight away the armour starts to mould itself to the body, as you are talking to the customer, remind them how comfortable it is, they will not know they are wearing armour. Tell them just how high the products pass the CE test.

So instantly on the two most important points, comfort and impact performance, they will get the message.

You can sell the product with your 'hand on heart' as the best body armour you can buy.

## **Demonstration**

The best demonstration is to use the Forcefield Balls!

One hard rubber and the other using shock absorbing material.

One ball bounces, this is hard rubber- showing how the energy passes through the ball, onto the hard surface and back into the ball again- making it bounce.

No shock absorbing qualities- replicating traditional hard armour.

The black Forcefield ball does not bounce, it stays firmly on the floor as the energy is harnessed and controlled- the perfect visual display.

## **Other Materials used**

### **Be Cool Fabric**

This is the 'wonder' fabric we use to accelerate wicking and keep the body both dry and comfortable.

We tested this extensively and found it to outperform other breathable wickable fabrics by a long way.

Used right throughout our technical base layer range, we also use the fabric in our Forcefield Body Armour clothing range. Consisting of the Pro Shirt range, Pro Vest, Pro Pants, Action shorts, Boom and Slam shorts. (See brochure for specific product detail). This now means we have both the best industry leading armour, housed in the most technical of fabrics. Now with Evo Vent Zones built in.

### **What is Be Cool?**

BeCool™ is a unique polyamide fibre that has a greater diffusive area than standard fibre, this ensures high levels of breathability and comfort. A four channelled thread gives up to 3 times greater surface area than cotton, which allows it to act like a fan forcing the skins hot and humid air towards the outer layer of the fabric while allowing cool and dry air to circulate from the outside in to the surface of the skin.

### **Magazine Reviews**

Over the years we have collected a mass of winning magazine and media tests/reviews. These can be requested from us at any time, although the easiest way to access them is direct from the review section on our web site.





## Professionals

Professionals who use and have used the armour include

- Leading Superbike and Isle of man TT motorcycle racers including Ryan Farquhar, Gary Johnson and Ollie Linsdell
- Professional Desert and Rally Riders
- The GB Ski and Snowboard teams
- The GB Para Ski and Board teams
- Over 50% of the world's elite GP speedway riders including World Champion Tai Woffinden
- Italian FISU Wintersports Teams
- The Royal Air Force Search and Rescue Teams
- The Royal Air Force Classic Motorcycle Race Team
- Royal Navy DH MTB Team
- Police forces Globally

For further information please take a look at the current Forcefield Product Brochure, or visit the Web site at

**[www.forcefieldbodyarmour.com](http://www.forcefieldbodyarmour.com)**

**Also please feel free to contact any member of the Forcefield Sales team**

Forcefield Body Armour is owned by Davies Odell Ltd. Portland Road/ Rushden/ Northants/ NN10 0DJ/ United Kingdom

**Designed and Developed in Great Britain** for over 25 years  
with one philosophy, **to be the best with no compromise!**

Specialising in soft armour technology from the beginning, Forcefield Body Armour creates industry leading, award winning sport protection. **Ultimate comfort, Ultimate safety, thanks to these unique key features:**



**BREATHABLE**

All armour is fully vented for increased airflow and maximum comfort in use



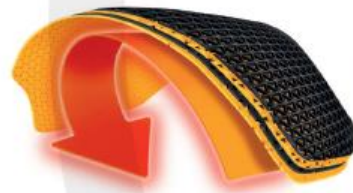
**ENERGY ABSORPTION**

Dynamic, Reactive and Intelligent materials mixed together in unique ways to ensure the very best energy absorption



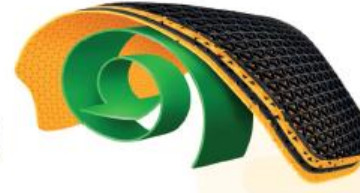
**SOFT & COMFORTABLE**

Unique 3-Dimensional moulding characteristics make the armour feel like part of the body



**HEAT ACTIVATED**

The smart materials react to a little body heat, resulting in even more comfort and secure fitting



**FLEXIBLE LAYERING**

Individual multiple layers move independently for increased flexibility and shock absorbing ability