WHAT MAKES FORCEFIELD BODY ARMOUR® DIFFERENT?
Forcefield has led the way in introducing the concept that body armour doesn't have to be hard, rigid and uncomfortable to wear. We are market leaders in soft armour technology. We design our body armour so that it is flexible, moulds to the users' body, stays in place and so comfortable that you wouldn't think about getting on your bike without wearing it. As importantly we have proven that the performance is superior to the more mainstream hard plastic protectors. Forcefield doesn't design products based on price. It designs to performance first. Hence our slogan "PROTECTION: NO COMPROMISE"

WHAT MAKES FORCEFIELD CLIMATE CONTROL DIFFERENT?
Designed to be used either in conjunction with Forcefield Body Armour® or independently the Forcefield Climate Control range uses the latest technical materials to create the best possible technical wear available today, and like the Forcefield Body Armour® the Forcefield Climate Control quality has not been created on price but to the highest specifications.

HOW RELEVANT/IMPORTANT ARE THE CE STANDARDS?
All Forcefield Body Armour® is CE approved which is essential to maintain a credible product that has proven performance. The CE testing standards for limb and back take into account protection, comfort and ergonomic requirements. Armour that conforms to the standard is proven to reduce the incidence and severity of injuries. With authentic CE approved limb or back protectors the end user at least knows that extensive research and testing has gone into the development of the product and that it has been accredited by an authorised body. It has a value! It's not just the manufacturer making claims that cannot be substantiated. End users should research and feel free to ask about an individual products performance.

We know with fake and non approved CE protectors that almost without exception the product has no capability to protect; it's effectively useless and could mislead the end user into believing that they have a protective product. No reputable company should sell non conforming products where a standard protecting the consumers exists.

WHAT DO THE EN NUMBERS ON OUR PRODUCT REFER TO?
EN1621-2:2003: Level 1
EN1621-2:2003: Level 2
"Motorcyclist's protective clothing against mechanical impacts - Part 2: Motorcyclists back protectors"- "Requirements and test methods": Level 1 and Level 2
EN1621-2:1998: Level 1
EN1621-2:1998: Level 2
As above but now replaced by 2003 version EN1621-2 relates only to back protectors. The impact energy used in the test is 50 joules. If the transmitted force recorded after the impact is between 9 KiloNewtons and 18 KiloNewtons it can be classified as a Level 1 Back protector or insert.
If the transmitted force recorded is below 9 KiloNewtons then it can be classified as a Level 2 Back protector or insert. The lower the transmitted force in KiloNewtons the more protective the

product is. Our current Pro Sub 4 back protector currently transmits about 3.38 KiloNewtons which is outstanding.

EN1621-1:1997

"Motorcyclists protective clothing against mechanical impact - Part 1: Requirements and test methods for impact protectors"

There is only one performance level according to this standard. It requires that given a 50 Joule impact the protector doesn't transmit a mean figure greater than 35 KiloNewtons. You may come across Type B, Type A and CE Type protectors. Type A and Type B refer only to the size, shape or coverage. All our protectors are Type B which means they meet the Type B template for coverage within the standard. Type A is a much smaller template more suited to children's sizing. CE sizing refers to full CE Motorcycle Clothing where the armour size relates to the garment size. Instead of one size fits all the armour coverage increases through the size range

EN14021:2003

"Stone shields for off road motorcycling suited to protect riders against stones and debris- Requirements and test methods"

This is to do with coverage mainly on the stone shield which protects against lofted stones and debris. The higher level of performance comes from integrating EN1621-1 and EN1621- 2 within the product as Forcefield have done with the Extreme Harness.

EN13277-2:2000 Clause 4.4

"Motorcyclist's protective clothing against mechanical impacts - Part 2: Motorcyclists Back protectors"- "Requirements and test methods" and with the coverage requirements of clause 4.4 ("zone of protection") of EN13277-2:2000 "Protective equipment for martial arts - Part 3: Additional requirements and test methods for trunk protectors"

This specifically relates to sizing/ coverage not impact on the Rib protectors for martial arts.

EN13595-1:2002

"Protective clothing for professional motorcycle riders -Jackets, trousers and one piece or divided suits -Part 1: General requirements" (Annex B- "Determination of clothing restraint").

This standard looks at not only the protective content of a product but takes into account the construction and whether the garment is designed to withstand the impact. If the product disintegrates during a fall it will be of no use. The garment should be designed to ensure that the armour stays in place to do the job that it is required to do.

EN340:2003

"Protective clothing - General requirements "The part we use is connected to chemical safety. This is a series of tests that ensure that the materials and components we use do not in themselves cause harm to the body. For instance some products in the market could contain banned substances/chemicals that could be harmful to the user.

WHAT IS A JOULE OF ENERGY?

The standards relevant to the motorcycle protectors make reference to impact energy of 50 joules. This is the amount of energy that strikes the protector when tested in a laboratory. The best analogy is it is like an average house brick weighing 2.5 kilos being dropped from 2 metres height.

WHAT IS A KILONEWTON?

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

WHAT IS NITREX EVO®?

Nitrex Evo Technical Data

NITREX Evo® is the family name for the PVC Nitrile materials used within Forcefield Body Armour®. Almost without exception every Forcefield Body Armour® product is made using a triangular grid material that we call Moulded NITREX Evo®.

This is made of interconnecting walls where the width of the wall at the base is always wider than at the top. This is triangular in shape and these walls all interconnect which means that the material is structurally solid and sound.

It isn't just down to the design. It's as much down to the NITREX Evo formula which is a shock absorption material with outstanding performance characteristics. Its light, its elastic, it has a slow recovery and is robust.

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 wont 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.

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

So on impact what you are trying to do is delay as long as possible the moment of peak transmitted force. This force is what does the damage to the body. So the better the material the longer this moment is delayed. The time is measured in milliseconds. NITREX Evo® 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.

WHAT IS A BECOOL™?

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.

WHAT IS A NEXTON/NYLAIR?

Nexton/Nylair is a hollow polyamide fibre with excellent thermal properties. The hollow fibre not only reduces the weight but allows air to become trapped therefore further enhancing its insulation properties. Nylair is capable of keeping the wearer warm with one third less weight creating a garment that is non bulky but exceedingly breathable and thermally responsive.

WHAT IS CORDURA®?

Cordura® fabric is a lightweight fabric that combines high abrasion resistance with rugged durability, great strength and exceptional tear and scuff resistance. Offering exceptional strength to weight ratio Cordura® compliments the NITREX Evo® armour in it is combined with in Forcefield Body Armour® by creating a further protective skin.