

# FR & ELECTRIC ARC

## WHAT IS AN ARC FLASH?

An ARC Flash is an undesired electric discharge that travels in the air between conductors. It can happen when electricity jumps through the air between conductors. The resulting explosion can reach heights of 35,000 degrees Fahrenheit - to put that in perspective, the surface of the sun is mere 10,000 degrees Fahrenheit!



# 35,000°F

## CERTIFICATION

ARC clothing must meet a lot of different criteria in order to comply with the standards they need to conform to, going through several rigorous tests ensuring not only the fabric passes but also the complete garment, making them fit for purpose. FR & Electric ARC garments are only worn in potentially life-threatening situations, which is why the testing process must be precise, strict and stringent and making them category 3 products.



## STANDARDS

IEC 61482-2



Protection against thermal hazards of an electric arc flash

EN ISO 11612



Protection against heat & flame

EN1149-5



Protection against electrostatic

EN ISO 11611



Protection clothing for use in welding & allied process

## PULSAR® RANGE

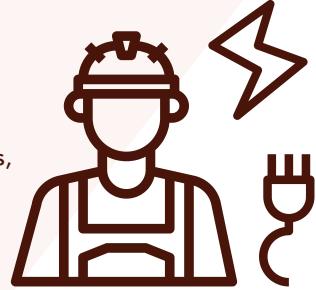
The PULSAR® FR & Electric ARC range consists of 3 different layered elements; next-to-skin garments (base layers), workwear garments (mid-layers, polo shirts, sweat shirt, combat trousers and a coverall) and waterproof garments (including a coat and salopette) in order to provide maximum protection for the wearer. The more layers you wear, the more protected you are from the dangers of your workplace.



VIEW THE FULL COLLECTION!

## INDUSTRIES

Injuries and accidents can happen in various industries such as Rail, Utilities, Road Workers, Industrial Electricians, Energy Testing Technicians, Electrics and Construction.



## CAL RATING



Once the clothing has passed the testing process, it will then receive a rating based on its performance. These ratings and classifications were created to help individuals select the right type of arc flash clothing depending on the risk of a flash fire and potential exposure level. This is known as the CAL rating. CAL is short for calorific which is a measurement of energy.

## PROTAL®

Working closely with Protal® and other partners, PULSAR® have been able to create highly innovative collection of FR & Electric ARC clothing. Protal® is a new super high-performance Protex fibre blend, supplied by Waxman fibres, ultimately giving the wearer a consistency of compliance not available with many other FR fabrics. Protal® has 3 different levels of fabrics -

### Protal 1

Is the industry standard fibre blend, featuring the new generation of Protex fibre - the next generation in FR PPE solutions

### Protal 3

Takes modacrylic blends to a new technical level, providing enhanced protection for welding applications at lighter weights, edge ignition and metal splash protection

### Protal 5

Provides globally compliant super-strength lightweight fabrics. For the first time, comfort and safety are introduced to this market sector.

## ATPV VS ELIM

An ARC Thermal Value (ATPV) refers to the maximum incident energy (in calories per centimetre squared) that protective equipment can be exposed to and prevent the onset of a second-degree burns where there is a 50% probability.

An Energy Limit Value (ELIM) is the point at which the clothing gives a 0% probability of enough energy getting through the garment to cause a second-degree burn. It is the new cal/cm<sup>2</sup> measurement.



Ratings are based upon the total weight of the fabric and ratings can be stacked when using a layered system. A higher rating means better protection. To summaries both ELIM and ATPV are properties to used to determine the effectiveness of arc flash clothing.