

Elliotts' Next Generation of Arc Flash PPE – The ArcSafe® X50 Range

Elliotts is an Australian manufacturer of PPE and safety gear dedicated to producing the best safety equipment on the market. The latest step in this production is the ArcSafe® X50 range, the latest in the popular Arc Flash PPE range ArcSafe® by Elliotts. In the words of Anthony Elliott, Managing Director of Elliotts, “It is an exciting development and offers something that the industry has been requesting for some time”.

Elliotts is dedicated to finding the top of the line equipment that provides maximum protection as well as comfort. Arc Flash PPE designs haven't changed in many years, with most developers still making simple garments.

The Elliotts development team have used their unique knowledge of creating protective clothing for many different industries that require PPE, from structural protective gear to wildland protective clothing. This experience has culminated over the past few years into the ArcSafe® X50's design, focused on the wearers mobility and comfort while still providing optimal protection.

Speaking with Anthony, “We're very excited to launch the new ArcSafe® X50 range to our already successful selection of ArcSafe® T40 and T9 ranges. We have spent two years, researching and testing many different fabrics and fabric combinations before we finally arrived at the ArcSafe® X50”.

The X50 range includes a full set of arc flash PPE including jacket, trousers, coat, and leggings all available with an optional reflective trim. These garments are all made from high visibility etek™ NXT™ and T-Gard® III Plus thermal liner with an ATPV 52 PPE4 (HRC4).

These protective garments are designed specifically to maximise comfort by wicking away moisture from the body while remaining lightweight and cool in hot conditions. The bib and brace trousers are fitted with features such as articulated knees for optimal movement, as well as 50mm wide braces and side tab closures. Similarly, the jacket and coat have articulated sleeves as well as underarm gussets and an action back.

The real trailblazing part of the new ArcSafe® X50 range is the brand new ArcSafe® Lift Front Face Shield. This brand-new face shield allows for quick release of heat and carbon dioxide and intake of fresh air, and includes an integrated hard hat.

The X50 Lift Front face shield uses the latest grey-coloured transparent face shields to allow for the true colour recognition. Its unique toric lens allows for greatly improved peripheral vision and glare reduction, which in turn reduces eye stress and strain. The X50 Lift Front face shield is also safe to be worn with prescription eyewear without risk of distortion.

The face shield is built from a nanoparticle formula that ensures that the face shield will not be negatively affected if scratched; however, the shield is still coated with an abrasion resistant coating along the front surface and a permanent anti-fog coating on the interior.

The hood is designed to provide the wearer with maximum comfort and visibility, hence the transparent chin protector allowing for more vertical vision for easy monitoring of your footing. The hood is also designed with front and side vents for indirect ventilation when the shield has been

lowered, releasing carbon dioxide and heat during use. The hood is further designed with auditory ports for less obstructed communication to the front and sides while the shield is closed.

The X50 face shield, like the rest of the kit, is available with some optional extras including an articulated light mount system on either side of the shield or two additional rear mounted vents for more effective ventilation of the hood.

All of the ArcSafe® X50 range are held to the highest standards of safety testing and Elliotts is proud of the industry leading certifications from independent third parties awarded to the X50 range.

“We have always, not only ensured our fabrics and fabric assemblies are tested, but that our completed garments are also tested. Our hoods and garments are tested by ArcWear at Kinectrics High Current Laboratory in Canada.” Says Anthony Elliott.

“Most manufacturers use test reports supplied by fabric manufacturers, make up a garment and call it an arc flash suit. Independent third-party testing of, not only the fabrics, but the garments and hoods provides the wearer with the confidence that the PPE will provide the protection it claims”.

The ArcSafe® X50 Range of garments have been tested to the following standards:

- ASTM F2178-08 Standard Test Method for Determining the Arc Rating and Standard Specification for Face Protective Products.
- ASTM F2621-19 Standard Practice for Determining Response Characteristics and Design Integrity of Arc Rated Finished Products in an Electric Arc Exposure.
- IEC 61482-1-2 - Box Testing Class 2
- AS4602.1:2011 High Visibility Safety Garments: Garments for high risk applications

The ArcSafe® X50 Fabric Ensemble has been independently tested by Kinectrics to:

- ASTM F1506 Standards for Flame Resistant Fabrics - ASTM F1506
- IEC 61482-1 Method A – Fabrics

The ArcSafe® X50 Performance Results

- Arc Rating: ATPV - 52cal/cm; PPE4 (HRC4)
- IEC 61482-1-2 Box Testing - Class 2
- AS4602.1:2011 – Class D or D/N

The ArcSafe® X50 Range by Elliotts is the next step in the evolution of the modern arc flash PPE and is guaranteed to provide the safest and most comfortable working conditions for anyone working in an arc flash risk environment.