

KEEPING YOU SAFE

Safety Standards & Safety Symbols Guide

Flame-Retardant Standards

EN 11611

Tensile strength
Tear strength
Burst strength
Seam strength
Dimensional change
Requirements of leather
Limited flame spread
Molten droplets
Heat transfer (radiation)
Electrical resistance



EN 11612 As above plus:

Heat resistance
Limited flame spread (A)
Convective heat (B)
Radiant heat (C)
Molten aluminium splash (D)
Molten iron splash (E)
Contact heat (F)



EN 14116

Flame spread
Tensile strength
Tear strength
Seam strength

Water Penetration and Breathability

EN 343

Protection against weather elements



Cold Weather

EN 14058

Protection against extreme weather



Chemical

EN 13034

Protection against chemicals



Anti-Static Standards

EN 1149

Protective clothing – Electrostatic properties
Anti-static clothing suppresses static charge, thereby preventing sparks, which might cause a fire or explosion.



EN1149-5 is a part of a larger system
EN 1149 consists of the following parts:

EN1149-1:

Test methods for the measurement of surface resistance

EN1149-2:

Test methods for the measurement of the electrical resistance through a material (vertical resistance)

EN1149-3:

Test methods for the measurement of charge decay

EN1149-4:

Garment test method (under development)

EN1149-5:

Performance requirements

High-Visibility

EN ISO 20471

Reflective materials used in Hi-Visibility clothing



Arc Standard

IEC 61482-2 PERFORMANCE & DESIGN REQUIREMENTS

Performance requirements for materials and design requirements for garments, plus Marking and User Information.

Live working-protective clothing against the thermal hazards of an electric arc – Part 2

IEC 61482-2:2018



IEC 61482-2:2009



Buying Guide

In partnership with specialist suppliers of flame-resistant and flame-retardant clothing, we offer a complete solution for customers requiring protection from heat, flame and dangerous substances: from identifying workplace hazards and the required protective clothing, to taking into account wearer comfort and value throughout the garment's life.

Types of fabric used in Flame-Resistant and Retardant Clothing

Adequate protective clothing provides escape time, reduces burn injury, and increases the wearer's chances of survival.

Flame-Resistant Fabrics

Inherently flame-resistant fabrics are made of fibres with naturally flame-resistant properties (i.e. not through chemical treatment). The fabric's effectiveness will not be reduced by repeated washing or wear, ensuring optimum protection throughout the garment's life.

Flame-Retardant Fabrics

Flame-retardant treated fabrics are produced by applying a finish to a fabric to reduce its flammability, or by incorporating a flame-retardant chemical into the fibre prior to spinning. Flame-retardant treatment chemicals are 'activated' by intense heat, producing char and gases that briefly inhibit combustion.

As this chemical treatment is washed out over time, the fabrics will only conform to heat and flame standards for a limited number of washes.

Arc Flash

Essentially an electric arc is the spark that jumps between any gap created in an electrical system, such as the tiny spark that can occur when a light switch is flicked on or off (which is why you should not use any switches if you suspect a gas leak or an electrical explosion or discharge, also known as a 'Flashover' from a low impedance connection through air to ground or to another voltage phase).

WHY DO YOU NEED ARC FLASH PROTECTION?

Thermal energy from an Arc Flash incident can be deadly. When someone is exposed to an Arc Flash incident, serious burns and other potentially life threatening injuries can be minimised and even avoided by effectively utilising Arc Flash garments.



An Arc Flash event may not be a daily occurrence in your business, but they are happening multiple times every working day in the UK. Risk assessment and precautions through safe working practices can be instigated by your company, and that will limit the possibility of an Arc Flash incident.



Wearing the correct Arc Flash protective garments for a specific risk level will further increase safety. There will always remain a risk, but there is significant Arc Flash protection available through wearing the correct garments.

IS ARC FLASH PROTECTION REQUIRED IN YOUR INDUSTRY?

Arc Flash incidents are common across industries such as power generation, utilities, industrial electrical and the rail industry. Arc Flash protective clothing can help prevent serious burns and permanent injury to those working in these sectors.

If you operate in any of these five key industry sectors, you should be considering Arc Flash protection for your team.

Power Generation – Your team are at risk of an Arc Flash incident inside and outside power stations

Utilities

Workers in the field require protection from Arc Flash dangers, especially if they are breaking ground on a regular basis

Petrochemicals – We know that awareness of Arc Flash dangers is now an integral part of your risk assessments. Arc Flash garments are becoming the safety clothing of choice for many in this sector

Rail – Arc Flash protection on the railways is vital. Arc Flash protective garments are available that comply with the special requirements of UK regulations for high visibility

Industrial Electrical – Those working with high voltage power supplies, in distribution centres and industrial and commercial maintenance teams are all at risk of Arc Flash incidents. Make sure they are protected.

