

KEEPING YOU SAFE



High-Visibility Garments

The requirements and the facts

Being struck by a moving vehicle is the second most common cause of death in the workplace. It is therefore essential that any high-visibility garments issued to employees conform to all relevant performance standards (EN471:2003/EN20471:2013, European Standard for High-Visibility Clothing) and are worn and maintained correctly for **maximum protection**.

So what does this mean to you?

In order to comply with all **UK and European legislation**, you need to ensure that the high-visibility garments you buy comply with the following: 'High-visibility clothing conforming to **EN471:2003/EN20471:2013** which must be worn at all times.'

BE PREPARED... THE COUNTDOWN HAS STARTED...

ON 21ST APRIL 2018,

the current PPE Directive 89/686/EEC will be repealed by the new "PPE Regulation (EU 2016/425)": so what changes will we experience as it becomes applicable?

Some of the major items that are affected or new are:

- The Scope and Exclusions are more clearly defined.
- It includes significantly increased obligations on Importers and Distributors of PPE and Safety Equipment.
- Surveillance Testing of PPE in production will be enhanced to include auditing of Production Control, Product Verification, and Production Quality Assurance where applicable, dependent upon PPE Categories I, II or III.
- PPE Product Categories (I, II and III) are defined, and some product types will change Category from Cat II to Cat III; for example those protecting against Biological Risks, Bullet Wounds and Knife Stabs, Cuts by Hand-Held Chainsaws, High-Pressure Jet Cutting, Risk of Drowning (Lifejackets), and Harmful Noise (Hearing Protectors).
- A suppliers EC Declaration of Conformity (or a web link to it) shall accompany each product.
- New EU Type Examination Certificates will have a maximum validity of 5 years.
- Current EC Type Examination Certificates are required to be renewed by 21st April 2023.
- All PPE Products will need to meet the latest versions of their relevant Standard.

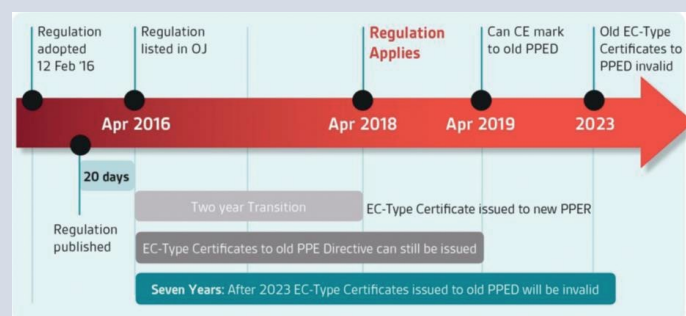
Obligations on "Economic Operators"

The Regulation (EU) 2016/425 uses a new term "Economic Operators" which it defines as anyone "intervening in the supply and distribution chain of PPE Products": so it includes manufacturers, authorised representatives, importers and distributors (including on-line vendors for the first time), as

well as requiring them to take appropriate actions to ensure their PPE products are fully in conformity with the Standard claimed.

There will be new obligations upon manufacturers, importers and distributors to hold copies of PPE Technical Files, Product Type Examination Certificates, and Declarations of Conformity, and keep records of these documents for at least 10 years. They should also ensure User Instructions are provided with each product and in the correct language, ensure that transport and storage do not harm the PPE's efficacy or conformity, and indicate on the PPE their Product Code or I.D. and postal address where they may be contacted.

Note that Distributors and Importers who place PPE on



the market under their own Name or Brand take on ALL the obligations of the manufacturer.

Conclusion

We are fully cognisant of our responsibilities and obligations to you in respect of the new PPE Regulation (EU) 2016/425 and – working closely with the BSIF in ensuring that we will be fully compliant at every stage of its implementation on your behalf – we will always be ahead of the game in keeping you, our customers, safe at work.

SAFETY STANDARDS GUIDE



HIGHWAYS
AGENCY

**Highways Agency: Chapter 8 Traffic Signs Manual
(Part 2) – Operations: Para 06.3.2**

The workforce and supervisory staff should wear high-visibility warning clothing at **ALL TIMES** when on site. Clothing shall comply with **EN471:2003/EN20471:2013 Class 2 or 3** (Class 3 on motorways and other high speed roads) and shall comply with the requirements of paragraph 4.2.3(b) of the Standard. The colour of the clothing shall normally be fluorescent yellow or fluorescent orange-red complying with Table 2 of the Standard.

The retroreflective material shall be to **Class 2** as defined in Table 5 of the Standard. In addition, on motorways and other high-speed roads, high-visibility jackets or coveralls shall have full length sleeves meeting the requirement of paragraph 4.2.4 of EN471:2003/EN20471:2013. This requirement may be varied to three-quarter-length sleeves where a risk assessment shows full-length sleeves would present increased risk due to the activity being undertaken.

Staff should also wear high-visibility trousers complying with **Class 1 of EN471:2003/EN20471:2013** where the carrying of large items of equipment or other activities may at any time obscure the visibility of the high visibility jacket or vest.

Highways Agency: Temporary Traffic Management On High-Speed Roads: Good Working Practice (Section W7)

Operatives who are engaged in activities on live traffic lanes should wear High-Visibility Garments to EN471:2003/EN20471:2013 Class 3

SAFETY STANDARDS GUIDE

Garment Classifications

Garment types are grouped into three classes based on the conspicuity provided, with the classes dictating the minimum quantities of background and retroreflective materials to be used.

CLASS 3: Highest Protection Level:

Bands of retroreflective material shall not be less than 50mm wide. Minimum background material 0.80m². Minimum retroreflective material 0.20m².

Horizontal reflective bands can now have an incline of $\pm 20^\circ$.

EN20471 was introduced in 2013 which clarifies and increases the performance levels of the original Standard and applies to "New Model" garments launched since October 2013.

CLASS 2: Intermediate Protection Level:

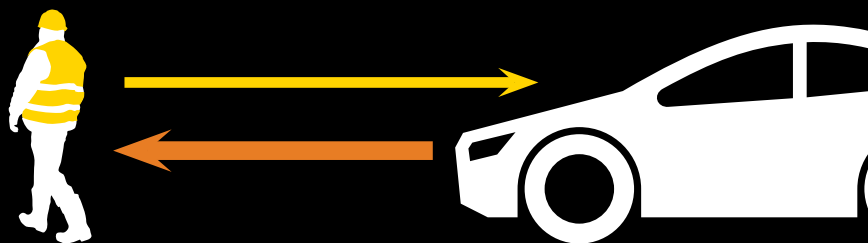
Bands of retroreflective material shall not be less than 50mm wide. Minimum background material 0.50m². Minimum retroreflective material 0.13m².

CLASS 1: Lowest Protection Level:

Where enhanced visibility is an advantage, but for minimal risk/off road purposes only. Bands of retroreflective material shall not be less than 50mm wide. Minimum background material 0.14m². Minimum retroreflective material 0.10m².



RETROREFLECTIVE



All Retroreflective Materials used in our High-Visibility Clothing exceed the highest brightness category of EN471:2003/EN20471:2013.

Retroreflective Materials greatly enhance your visibility in low light situations. This reflective material returns light to a light source – such as vehicle headlights – creating a bright image that motorists are more likely to see from a distance. As a result, motorists and pedestrians have more time to react.

SAFETY STANDARDS SYMBOLS

To aid selection, garments in this catalogue now carry icons denoting the EN safety standards to which they comply.

***All newly Certificated High-Visibility Garments must comply with EN ISO 20471:2013**



EN471:2003/EN20471:2013 – High-Visibility Warning Clothing

3 classes of protection



EN343 – Protection against Rain

3 classes of waterproofness and breathability



EN342 – Protection against cold

(Temperatures <5°C)



RIS-3279-TOM – Approved Garments for Railway Workers

Railway Group Standard GO/RT 3279 has been replaced by the Rail Industry Standard RIS-3279-TOM, High Visibility Clothing, which reproduces the content of GO/RT in its entirety as Annex "A" of that document.

FLAME-RESISTANT CLOTHING



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).

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



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

Water Penetration and Breathability

EN 343

Protection against weather elements



Hi-Visibility

EN471/EN20471

Reflective materials
used in Hi-Visibility
clothing



Arc Standard

EN 61482-2:2009

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



Chemical

EN 13034

Protection against chemicals



Cold Weather

EN 14058

Protection against extreme weather





Our Safety Standards Guide

WELDING PROTECTION

When a flame or spark comes into contact with the surface of the FR fabric, it forms a charred area which helps to insulate the wearer from the heat. Within 2 seconds any flame or glow will extinguish and the charred area will turn brittle as it cools. Repeat occurrence of charred areas will deteriorate the garment and compromise the safety of the wearer. It should therefore be replaced immediately.

It is recommended that primary PPE such as aprons and gauntlets must be used during welding operations. Welding garments are considered secondary protection.



EN ISO 11612:2015: Protective Clothing to protect against heat and flame.



EN ISO 11611:2015: Protective clothing for use in welding and allied processes.

Class 1: For protection against less hazardous welding techniques and situations, causing lower levels of spatter and radiant heat.

Class 2: For protection against more hazardous welding techniques and situations, causing higher levels of spatter and radiant heat.

REQUIREMENT	CLASS 1	CLASS 2
Impact of Spatter	15 drops	25 drops
Heat transfer (radiation)	RHTI 24≥7 seconds	RHTI 24≥16 seconds

Type of welders clothing	Selection criteria relating to the process		Selection criteria relating to the environmental conditions
CLASS 1	Manual welding techniques with light formation of spatters and drops, e.g.:		Operation of machines, e.g. of: • Oxygen cutting machines • Plasma cutting machines • Resistance welding machines • Machines for thermal spraying • Bench welding
	<ul style="list-style-type: none"> • Gas Welding • TIG welding • MIG welding • Micro plasma welding 	<ul style="list-style-type: none"> • Brazing • Spot welding • MMA welding (with rutile-covered electrode) 	
CLASS 2	Manual welding techniques with heavy formation of spatters and drops, e.g.:		Operation of machines, e.g. of: • In confined spaces • At overhead welding/cutting or in comparable constrained positions
	<ul style="list-style-type: none"> • MMA Welding (with basic or cellulose-covered electrode) • MAG welding (with CO2 or mixed gases) • MIG welding (with high current) • Self shielded flux core arc welding 	<ul style="list-style-type: none"> • Plasma cutting • Gouging • Oxygen cutting • Thermal spraying 	



The EEC PPE Directive has identified six levels of protection (Types) to facilitate the choice of chemical protective clothing. To carry the CE marking, chemical protective equipment (category III) must pass one or more of the garment "Type" tests, meet or exceed the minimum requirements for the materials' physical and chemical properties, and be correctly identified and labelled. In addition, the products must be manufactured to a consistent quality, and the manufacturer must either hold a quality certificate such as ISO 9000, or be subject to regular inspections by the notified laboratory.





Along with our Nebosh trained staff, and our preferred supply partners, we can provide site surveys to customers in order to evaluate their requirements and identify the most suitable solutions for their needs, taking into consideration the following:

- Chemicals and Processes in the Workplace
- The Working Environment
- Exposure Conditions
- Comfort and Value




Please contact your local branch for further details.

PROTECTIVE CLOTHING TYPE DEFINITION

Chemical Protective Clothing – Category III

Type	Description	Norm
 Type 3	Protection against pressurised liquid chemicals	EN 14605
 Type 4	Protection against aerosols	EN 14605
 Type 5	Protection against airborne solid particulate chemicals	EN ISO 13982-1
 Type 6	Limited protection against liquid mist	EN 13034

Other types of protection

Description	Norm
 Protection against particulate radioactive contamination <small>EN 1073-2: 2002 Class 1</small>	EN 1073-2*
 Biological protection (Infective Agents) <small>EN 14126: 2003</small>	EN 14126
 Electrostatic discharge if properly grounded (Anti-Static) <small>EN 1149-5: 2008*</small>	EN 1149-1: 1995**

* Gives no protection against radioactive radiation.

** The antistatic treatment is only effective when relative humidity is > 25%.

FOOD HYGIENE IS EVERYONE'S CONCERN



HACCPUK
Your HACCP Needs in Safe Hands

YOUR GUIDE TO KITCHEN HYGIENE

Regulation EC 852/2004 on the hygiene of foodstuffs (articles 7 & 8) provides for the development of National Guides to good hygiene practice and the application of HACCP principles. Food business operators may use these guides on a voluntary basis as an aid to compliance with the food hygiene requirements. Food industry sectors wishing to develop a recognised guide to compliance with the hygiene requirements should follow these guidelines"

Source: Food Standards Agency – "Advice on the preparation of national guides to good hygiene practice and the application of HACCP principles within the legislative framework" – 03 May 2013.

HACCP

The Hazard Analysis and Critical Control Point (HACCP) system is internationally accepted as the system of choice for food safety management. It is a preventative approach to food safety based on the following 7 principles:

- Identify any hazards that must be prevented, eliminated or reduced;
- Identify the critical control points (CCPs) at the steps at which control is essential;
- Establish critical limits at CCPs;
- Establish procedures to monitor the CCPs;
- Establish corrective actions to be taken if a CCP is not under control;
- Establish procedures to verify whether the above procedures are working effectively;
- Establish documents and records to demonstrate the effective application of the above measures.

The HACCP approach provides a systematic way of identifying food safety hazards and making sure that they are being controlled day-in, day-out. In short this involves the following steps:

- Plan what needs to be done to maintain food safety and write it down;
- Minimise the likelihood of food poisoning bacteria contaminating meat and associated products;
- Avoid physical and chemical contamination of meat;
- Reduce the potential for growth of food poisoning bacteria on meat and associated products;
- Minimise the potential for cross-contamination of ready-to-eat foods by food poisoning bacteria on meat during further processing or in the kitchen.

Also available is a range of complementary personal protection which includes Cold Store Clothing to EN342, Thermal & Insulated Gloves to EN388 & EN511, Insulated Safety Footwear & Safety Wellingtons to EN20345 & Thermal Under- & Outerwear to mix & match for all environmental conditions.

A comprehensive range of Colour Coded Catersafe Disposable Workwear is available, ideally suited to the food processing and catering industries, which includes hats, caps, coats, beard masks, aprons, sleeves, overshoes and gloves.