



Collaborative PPE



PROTECTING THE WORLD'S FIREFIGHTERS





Introduction

The Collaborative Framework is accessible to all Local Authority Fire and Rescue Services (FRS) across the UK, and open to others including police and NHS. Devised and led by Kent FRS, the Framework provides access to high quality PPE ensembles, whilst saving considerable time and resources by simplifying and streamlining the procurement process.

PPE for the Framework is supplied by Bristol Uniforms and has been specially selected for its suitability for the varying roles and activities faced by the modern firefighter. Ensembles include Full Structural Ensemble, a Layered Jacket, Rescue Jacket and USAR Ensemble. The selected styles combine innovative and ergonomic designs with the use of high-performance fabrics and fibres, offering maximum comfort, manoeuvrability and protection.

The selection process

To select a supplier for the Framework, a rigorous tender process was undertaken over a two-year period, which included market engagement, technical assessments, cost negotiations and practical user trials. The specifications were developed by a specially selected Technical Team, which had representation from around 20 UK FRSs and included Fire Brigades Union officials. The Technical Team undertook and agreed a thorough risk assessment, highlighting the required PPE performance characteristics, and developed this into a detailed output-based specification. The University of Portsmouth's Extreme Environments Laboratory assisted in the development of the specifications to provide a strong rationale for each requirement, and to carry out physiological tests on the successful ensembles.

The specifications called for suitable PPE ensembles for a range of activities, including structural firefighting, outdoor firefighting and technical rescue, and looked to explore innovation in PPE design, fabrics and methods to achieve the best possible solution. Each supplier was able to submit up to three options for each item of PPE, which were then tested to determine the best performing items which went through to make a final ensemble for each supplier.

23 volunteer evaluators with diverse physical profiles were then appointed from FRSs across the country to trial the full range of garments whilst undertaking a number of typical activities, from basic operations, road traffic accidents and ladder climbing, to tackling full-scale fires. They provided scores on markers such as design, compatibility, overall use and functionality.

At the end of the process, Bristol Uniforms was selected as the preferred supplier, and offers a range of top-to-toe PPE through the Framework, from which FRSs can select the ensembles that most suit their operational needs.

Procurement options

When signing up to the Collaborative Framework, FRSs can either opt for a Fully Managed Service, which is a PPE lease option that includes lifetime care and maintenance, or a Purchase Only contract.

Managed services

The Framework contract also includes the supply of Managed Services within the Fully Managed Service option for cleaning and maintenance of PPE, which will be delivered by Bristol Uniforms' dedicated in-house Service Centres.

Bristol's Managed Services option involves collecting soiled or damaged garments from FRSs around the country, transporting them to one of the two UK Service Centres for thorough cleaning, inspection and repair, before returning them to the customer within seven days. Unique bar codes on each item provide a thorough record of its life-journey from the date of manufacture, the specific rolls of fabric that were used to create it, and each wash and repair.

The Service Centres are also equipped to treat contaminated PPE, which has been exposed to toxic or hazardous materials and need to be cleaned in a specially controlled environment.

Compatibility and sizing

Crucially, by choosing to purchase via the Collaborative Framework, FRSs can be assured that all sets of kit are fully compatible. All boots, gloves and helmets have been tested to ensure they operate effectively with the trousers, jackets and coats, without leaving areas of the body vulnerable or exposed to risk. A wide range of sizes are available for all kit, with male and female standard sizes available in all coats, jackets and trousers. This ensures a good fit for every member of the crew. Equally, all kit has been specified to meet relevant GEN Standards.





Structural coat and trouser



For structural firefighting, the Collaborative Framework has selected the next generation in Bristol's popular XFlex style. The distinctive sports styling and lighter weight of the XFlex structural coat and trousers, offers the ultimate fit and comfort for all body shapes, along with superior ergonomic performance. This latest version of XFlex features action pleats in the back of the coat for additional freedom of movement.

The outer shell is made from Hainsworth's TITAN1260 fabric, with PBI fibres. This is combined with a Gore-Tex® moisture barrier and an Axion thermal liner, which extends into the hems for additional thermal protection. It also has a smooth feel which makes it easier for donning and doffing.

These garments are certified to EN469:2005 Level 2, and comply with EN343 waterproof and EN1149 anti-static Standards.



These are available in Male and Female sizes.
The product codes are:

Structural Coat (male)
Structural Coat (female)
Structural Trousers (male)
Structural Trousers (female)

XF2/A_PR2YG
LXF2/A_PR2YG
TXF2/A_PR2YG
LTXF2/A_PR2YG



Layered approach

Layered Approach which comprises the following garments:

- Top-Layer Coat**
- Mid-Layer Coat**
- Structural Trousers**

Bristol was the first PPE manufacturer to introduce a layered approach to PPE using a set of three garments. Its LayerFlex garments are particularly useful when a fire service is faced with a range of operations requiring different levels of protection, and may need to switch between roles quickly. These two specific layered-system coats, selected by the Collaborative Framework, are worn together in combination with the XFlex structural trousers for full structural firefighting protection.

The top-layer coat is similar in style and specification to a structural coat, but has no collar. When appropriate, the top-layer coat can be removed, providing more suitable levels of protection and performance when the immediate danger of fire is removed. This serves to improve ergonomics and comfort, and crucially can contribute to the lowering of heat stress in firefighters.

The mid-layer coat is a short style coat in Hi-Vis yellow with a silver reflective trim and a Gore-Tex® laminated lining. However, the collar is cut in Hainsworth's TITAN1260 and has additional protection to comply with structural Standards, so that the neck area is fully protected when the XFlex outer coat is worn over the top. The mid-layer coat meets the Standard EN ISO 20471:2013 Class 3 for High Visibility clothing, and when worn together, the Layered Jackets meet EN469:2005 Level 2.



These are available in Male and Female sizes.
The product codes are:

- | | |
|-------------------------------------|----------------------|
| Top-Layer Coat (male) | ELX/A_PR2YG |
| Top-Layer Coat (female) | LELX/A_PR2YG |
| Mid-Layer Coat (male) | ELR/A_UT4HV |
| Mid-Layer Coat (female) | LELR/A_UT4HV |
| Structural Trousers (male) | TXF2/A_PR2YG |
| Structural Trousers (female) | LTXF2/A_PR2YG |



Rescue coat



This new Rescue Coat is based on Bristol's popular RescueFlex jacket, but incorporates XFlex-style sleeves. It is to be worn with the XFlex trousers as an alternative to the full structural XFlex coat, for emergencies and rescue operations that do not specifically need full protection to structural fire levels. It has a Hi-Vis yellow outer shell with Gore-Tex® laminated lining, and also features vented underarms for greater air circulation. This garment meets the Standard EN ISO 20471:2013 Class 3 for High Visibility clothing and ISO 16073:2011.



These are available in Male and Female sizes.
The product codes are:

Rescue Coat (male) **RF1/A_UT4HV**
Rescue Coat (female) **LRF1/A_UT4HV**



Structural ensemble

Fire hood – BRISTOLHOOD5

The BRISTOLHOOD5 is a new design with three layers, offering particularly high levels of thermal protection. The hood features two layers of Kermel viscose knit, combined with a PBI rib knit outer fabric in gold. The fabrics are breathable and wickable, both for comfort and to avoid overheating. The hood meets EN13911:2004.



Rescue Glove – GLOVE57

The rescue glove, in orange, is lightweight and dextrous with a reinforced secure-grip on the palm and pre-curved fingers. The top of the hand features active breathing Nomex® fabric, and a 'touchfinger' enables the user to operate touch-sensitive displays. The glove meets EN420:2003 + A1:2009.



Helmet – HEL32YET/HEL32WHT

Rosenbauer's Heros-Titan Helmet has been selected for the Collaborative Framework and will be supplied by Bristol Uniforms. The helmet, with integrated torch, offers comfort alongside maximum protection, withstanding high mechanical loads and temperatures of more than 300 °C. The helmet meets EN443:2008.



Leather Structural Boot – BOOT56

The leather Crosstech Firefighters Boot 9306CA from Jolly is knee-height, with a waterproof inner lining system, which is very light and comfortable to wear for extensive periods. It includes elastic inserts to keep the foot in the correct position, and meets Standard EN15090:2012.



Structural Glove – GLOVE56

The gold structural glove is manufactured by German supplier, Seiz, and is made from a combination of soft elk leather and Nomex® fabric, with a Kevlar lining. It is fully washable and meets Standard EN659:2003 + A1:2008.



Rubber Structural Boot – BOOT57

The Skellerup Rubber Boot is knee height with a Nomex® lining. It meets Standard EN15090:2012.





USAR ensemble

The Collaborative Framework has also selected Bristol's Urban Search and Rescue (USAR) Coat and Trousers set, specifically designed for non-structural firefighting situations and for maximum manoeuvrability in confined spaces.

The USAR coat and trousers can zip together across the back waist, to form a one-piece garment if needed. These garments are single-layered, and therefore extra light-weight, made with Hi-Vis Ripstop Flamacryl Flamestop fabric. Key styling features include vented underarms, ergonomic sleeves, and zipped cuffs and ankles. These garments both meet the Standard EN ISO 20471:2013 Class 3 for High Visibility clothing and EN11612:2015.

Other items in the USAR Ensemble include an MSA F2-Xtrem helmet, Seiz XRescue safety gloves, and a choice of Jolly Leather rescue boots (9300GA) and Jolly Chainsaw boots (9065/GA).

These are available in Male and Female sizes.

The product codes are:

USAR Jacket (male)
RF/BC_F53OR

USAR Jacket (female)
LRF/BC_53OR

USAR Trousers (male)
TRF/N_F53OR

USAR Trousers (female)
LTRF/N_F53OR

Specialist USAR wet weather jackets and trousers are also available, made by Bell Apparel.

These meet Standards EN343:2003 and EN20471:2013 Class 1 (Jacket), Class 2 (Trousers), and are available in Male and Female sizes.

The product codes are:

USAR Wet Weather Jacket
WPJACKET01

USAR Wet Weather Trousers
WPTROUSER01



HEL16RESF

MSA F2-Xtreme helmet which meets EN16571:2004 and EN16473:2014.



GLOVE46

Seiz XRescue Safety Glove which meets EN388:2003 and EN420:2003 + A1:2009.



BOOT58

Jolly Rescue Boot which meets EN15090:2012.



BOOT59

Jolly Chainsaw Boot which meets EN15090:2012 and EN ISO 17249:2013 + A1:2014.

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