



NFCC
National Fire
Chiefs Council

The professional voice of the
UK Fire & Rescue Service

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Firefighters Personal Protective Equipment

Standard, Specification and Requirements

Urban Search and Rescue (USAR) [Technical Rescue]

Ensemble

**[Includes: - Jacket and trouser (coverall), Helmet,
Gloves, Boots and water/weather protection
clothing]**

Specialist PPE Project – Oct 2021

SCOPE

This performance specification describes the requirements for a protective USAR ensemble for both male and female fire fighters.

The USAR ensemble should offer the wearer protection from injuries, which could arise through accidents in the working sector for which the jacket and trouser is designed.

The USAR ensemble is to be CE marked to the various product standards as prescribed below.

PERFORMANCE REQUIREMENTS

Description and Use

Provision of a protective USAR ensemble that meets the general and specific needs of Fire & Rescue Service (FRS) operational personnel.

The product must be suited to the range of technical rescue activities carried out during emergency response and training operations. The product must be of such design, robustness, material and specification to meet the needs of these operations. It should also be simple to clean, repair and maintain.

All test performance data must be submitted with tender document, please indicate compliant and submitted where requested. All documentation to be in English.

Technical rescue PPE is designed, following a suitable risk assessment, to protect firefighters from risks that cannot be removed by other means.

One potential emerging risk to firefighter's health is exposure to contaminants as a result of the incidents that they attend; some of these contaminants may be carcinogenic.

All Contractors should be mindful of these emerging risks and as such ensure that the PPE is designed to be easily cleaned and decontaminated. In addition methods for identifying that the PPE may be contaminated should also be considered when designing the PPE.

Requirement Reference Number	Requirement	Response Criteria
A1	<p>Two piece coverall</p> <p>Item must be compliant to:</p> <ul style="list-style-type: none"> • EN ISO 11612; marked A1, B1, C1, F1 <i>(possibly BS EN 16689:2017 is more appropriate)</i> • EN ISO 20471; class 3, Hi visibility orange <p>In addition:</p> <ul style="list-style-type: none"> • must be able to be zipped together • have reinforced elbows and knees patches • Secure fastenings at ankle and cuffs • 'Urban Search and Rescue' embroidered on rear of jacket or heat applied transfer in white or silver • Various Velcro patches on front of jacket and upper arms for name badges and other such badges • Trouser and jacket to have utility pockets which are both zipped and Velcro fastened. • Must be suitable (robust and durable) for the harsh working environments • Available in all sizes between XS to XXXXL inclusive and be available in both male and female sizes. • To include a facility to provide 'made to measure' for wearers that fall outside standard size ranges 	<p>Evidence from Tenderer shall constitute:</p> <p>(1) Independent Certification from test laboratories that are accredited to their respective National Accreditation Service, The National Accreditation Service must be members of either EA or ILAC and comply with ISO/IEC 17011:2017. Validity of Certification must be 6 months or more prior to date of expiry, or; A signed letter on official letterhead from the relevant test house stating that work to complete the required certification has been commissioned and certification will be achieved before the required deadline.</p> <p>(2) Detailed Product specification.</p>
A2	<p>USAR Helmet</p> <p>Item must be compliant to:</p> <ul style="list-style-type: none"> • EN 16473 <p>In addition:</p> <ul style="list-style-type: none"> • Fully vented • Easily adjustable, three point chin strap system and adjustable ratchet head fitting system • Have Hi visibility markings • Anti UV properties to prevent fading • Available in red and white • Must have fully compatible accessories: <ul style="list-style-type: none"> ○ Lighting 	

	<ul style="list-style-type: none"> ○ Hearing protection ○ Face protection for chainsaw use <ul style="list-style-type: none"> ● Must be able to be used with full respiratory CABA facemask ● Available in sizes 52cm-64cm <p>Fire and Rescue badge to front of helmet</p>	
A3	<p>USAR Glove</p> <p>Item must be compliant to:</p> <ul style="list-style-type: none"> ● EN 420, dexterity level 2 ● EN 388, Abrasion 3, Cut 4, Tear 3 and Puncture 3 ● EN 407, contact heat level 1 <p>In addition:</p> <ul style="list-style-type: none"> ● Anti-vibration protection to palm ● To be available in all sizes between 6 to12 inclusive. <p>To include a facility to provide 'made to measure' for wearers that fall outside standard size ranges.</p>	<p>Evidence from Tenderer shall constitute:</p> <p>(1) Independent Certification from test laboratories that are accredited to their respective National Accreditation Service, The National Accreditation Service must be members of either EA or ILAC and comply with ISO/IEC 17011:2017. Validity of Certification must be 6 months or more prior to date of expiry, or; A signed letter on official letterhead from the relevant test house stating that work to complete the required certification has been commissioned and certification will be achieved before the required deadline.</p> <p>(2) Detailed Product specification.</p>
A4	<p>USAR Boot</p> <p>Item must be compliant to:</p> <ul style="list-style-type: none"> ● EN ISO 20345; Class 1, SRC ● EN 15090; HI₁ <p>In addition:</p> <ul style="list-style-type: none"> ● Upper; fire retardant with reflective markings ● Inner; breathable, moisture wicking, anti-bacterial and waterproof membrane ● Internal high stitched tongue ● High illumination marking ● Fire retardant laces ● Rapid donning and removal capability ● Ankle support ● To be available in all sizes 36 to 50 inclusive suitable for both female and male wearers. ● To include a facility to provide 'made to measure' for wearers that fall outside standard size ranges. 	

A5	<p>USAR Water/Weather Protection Suit</p> <p>Item must be compliant to:</p> <ul style="list-style-type: none"> • EN ISO 20471; Class3, High visibility orange • EN 343 <p>In addition:</p> <ul style="list-style-type: none"> • To consist of jacket and trouser • Waterproof seams • Elasticated waistband on trousers • Jacket to have inner lining for warmth (can be detachable) • Machine washable • Suitable fastenings at cuff and ankles • Available in all sizes between XS to XXXXL inclusive and be available in both male and female sizes. • To include a facility to provide 'made to measure' for wearers that fall outside standard size ranges. 	<p>Evidence from Tenderer shall constitute:</p> <p>(1) Independent Certification from test laboratories that are accredited to their respective National Accreditation Service, The National Accreditation Service must be members of either EA or ILAC and comply with ISO/IEC 17011:2017. Validity of Certification must be 6 months or more prior to date of expiry, or; A signed letter on official letterhead from the relevant test house stating that work to complete the required certification has been commissioned and certification will be achieved before the required deadline.</p> <p>(2) Detailed Product specification.</p>
A6	<p>Compatibility</p> <p>All elements of the ensemble must be compatible with each other.</p> <p>Reference to BS EN 16689:2017;annex C and D</p>	<p>Evidence from Tenderer shall constitute:</p> <p>(1) Independent test report from test laboratories that are accredited to their respective National Accreditation Service, The National Accreditation Service must be members of either EA or ILAC and comply with ISO/IEC 17011:2017. Validity of Certification must be 6 months or more prior to date of expiry, or; A signed letter on official letterhead from the relevant test house stating that work to complete the required testing has been commissioned and test report will be achieved before the required deadline.</p> <p>Detailed Product specification to evidence compliance with all points i, ii, and iii.</p>

USAR Ensemble - General Requirements

B1	<p>To include a facility to provide 'made to measure' for wearers that fall outside standard size ranges.</p>	<p>Evidence from Tenderer shall constitute:</p> <ul style="list-style-type: none"> • Detailed Product specification • The actual sizing chart to be offered via the Framework that evidences provision of all sizes required
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B2	<p>Each garment will need to be uniquely barcoded in order that the Authority is able to track each garment, particularly if a garment is sent for cleaning, repair and maintenance.</p> <p>The Tenderer must provide an inventory of barcodes with each order delivered and hold a central database of all barcodes assigned to each order for each Participating Authority.</p> <p>If providing cleaning, repair and maintenance services, the Tenderer must use the unique barcodes to enable both the Tenderer and the Authority to track the garments throughout each stage of the respective service provision. This information must therefore be accessible to both the Tenderer and Participating Authority throughout the life of each call-off arrangement.</p>	<p>The Tenderer must provide relevant evidence to demonstrate how the requirement shall be met, and shall include product information of the barcoding system that shall be used to meet the requirement.</p>
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USAR Ensemble - Additional Documentation

C1	<p>The tenderer shall provide all relevant user documentation and manuals that details how the item is:</p> <ol style="list-style-type: none"> 1. Safely used and adjusted (if necessary) 2. Maintained, including repair if relevant 3. Cleaned <p>All of these to be published in English.</p>	<p>Evidence from Tenderer shall constitute:</p> <p>User documents that come with the product detailing all the requirements (1, 2, and 3 as listed) in English on company headed or branded paperwork</p>
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USAR Ensemble - Optional Fire Service Requirement

D1	<p>Cleaning, maintenance and repair service compliant to BS 8617.</p> <ul style="list-style-type: none"> • Weekly collection and drop off • 7 day turnaround • Multiple locations 	<p>Evidence from Tenderer shall constitute:</p> <p>Tenderer to provide confirmation that a one piece coverall version is available and that the size range required is available</p>
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