

EN ISO 13688:2013 Protective clothing -

General Requirements

ISO 13688 specifies general performance requirements for ergonomics, innocuousness, size designation, ageing, compatibility and marking of protective clothing and the information to be supplied by the manufacturer with protective clothing.

This international standard is only intended to be used in combination with other standards containing requirements for specific protective performance and not on a stand-alone basis. Please refer to garment label for washing instructions.

Size Guideline

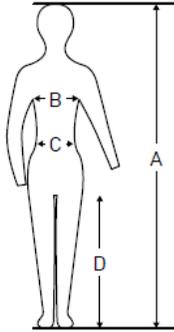
All measurements in centimetre.

Height measurement (A)

Chest measurement (B)

Waist measurement (C)

Inside leg measurement (D)



MED APPROVED

Directive reference MED 2014/90/EU together with MED (EU) 2021/1158 as per regulation item MED/3.3a firefighters outfit

EC-Type examination by Shirley Technologies (Europe) Limited, Notified Body 2895, Port Tunnel Business Park, Unit 21, Block 1 Clonsaugh Business and Technology Park, Dublin 17

UK Type Examination by BTTG, Approved Body 0338, Manchester M17 1EH



0338



2895



BS EN 469:2020 Protective clothing for firefighters—performance requirements for protective clothing for firefighting
Performance Levels
LEVEL 2 - X2, Y2, Z2

This pictogram denotes that these garments are suitable as Personal Protective Equipment where a Heat and/or Flame hazard may occur.

The upper and lower body including the neck, arm to the wrist and leg to the ankles are protected and covered by the clothing, but other parts of the body are not and need essential means in order to be fully protected. In the event of an accidental splash of chemical or flammable liquids, the wearer should immediately withdraw and remove the garments, which shall then be cleaned or removed from service.

- Xf1 or Xf2 and Xr1 or X2. These are the levels achieved for heat protection (flame and radiation) where level 2 is the highest
- Y1 or Y2. this is the level achieved for resistance to water penetration - level 2 is highest.
- Z1 or Z2. this is the level achieved for water vapour resistance - level 2 is highest.

Limitation of Use:

To ensure optimum performance of these garments they should be cleaned on regular basis. Damaged garments will not provide the optimum level of protection. The trouser style 805 must be worn with a fire fighting jacket style 800 to BS EN 469:2020 level 2 to fully comply with BS EN 469:2020 level 2.

Aftercare:

For cleaning instructions, please consult the Wash Care label in the garment

Note: It is very important to follow these wash, dry and care instructions properly, failure to follow these instructions may mean that the garments no longer offer full protection against the hazards they are designed to protect against.

Note about the sleeves end

The anti-wicking layer is overlaid on 3 layer assembly which is an improvement on thermal performance

FLAME PRO

Styles

770/775 + 670/675

LYNX 777

User Information Guide Version: 11

PLEASE REFER TO GARMENT CARE LABEL FOR PROTECTION LEVELS AND STANDARDS THE GARMENT MEETS

Module B - BTTG, Notified Body 0338, Manchester M17 1EH, performed the type-examination (Module B) and issued EU type-examination certificate, which is now held by BTTG, Approved Body 0338, Manchester M17 1EH for UKCA and Shirley Technologies (Europe) Limited, Notified Body 2895, Port Tunnel Business Park, Unit 21, Block 1 Clonsaugh Business and Technology Park, Dublin 17, ROI for EU

Module D - The item is subject to the conformity assessment procedure Module D, under surveillance of the Approved body BTTG, Approved Body number 0338 Manchester M17 1EH and Notified Body 2895 Shirley Technologies (Europe) Limited Port Tunnel Business Park, Unit 21, Block 1, Clonsaugh Business and Technology Park, Dublin 17, ROI who issued Module D Certificate,

These garments bear UKCA marking to demonstrate compliance with Regulation 2016/425 Personal Protective Equipment Annex II Health & Safety Requirements, as adopted by UK law and amended.

These garments bear CE marking to demonstrate compliance with EU Regulation 2016/425 Personal Protective Equipment Annex II Health & Safety Requirements.

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Please refer to the website for CE & UKCA Declaration of conformity.

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Aviation and Survival Support AS

**Aviation and
Survival Support**

AVAILABLE SIZES

Size Code	Chest (cm)	Chest (inches)	Waist (cm)	Waist (inches)
XS	84-92cm	33"-36"	68-76cm	27"-30"
S	92-100cm	36"-39"	76-84cm	30"-33"
M	100-108cm	39"-42"	84-92cm	33"-36"
L	108-116cm	42"-45"	92-100cm	36"-39"
XL	116-124cm	45"-49"	100-108cm	39"-42"
2XL	124-132cm	49"-52"	108-116cm	42"-45"
3XL	132-140cm	52"-55"	116-124cm	45"-49"
4XL	140-148cm	55"-58"	124-132cm	49"-52"

AVAILABLE FITS

Size	Height (cm)	Height (Feet)	Inside Leg (cm)	Inside Leg (inches)
Extra Short	156-164cm	5'2"—5'5"	68cm	27"
Short	164-172cm	5'5"—5'8"	73cm	29"
Regular	172-180cm	5'8"—5'11"	78cm	31"
Tall	180-188cm	5'11"—6'2"	83cm	33"
Extra Tall	188-196cm	6'2"—6'5"	88cm	35"
XX Tall	196-204cm	6'5"—6'8"	93cm	37"

WASH CARE SYMBOLS



- 60 Degree Celsius
- Do not bleach, do not boil, do not use soap based products, only detergents
- Tumble dry permittable - high heat
- Iron - high heat
- Dry cleaning permittable

General PPE Maintenance Guidelines

- Wash the PPE regularly using specially adapted programs for contaminated emergency clothing
- The garments should be cleaned after incidents where they have been affected by fire gases or soiled by soot, by-products of combustion, blood, body fluids, tar, fuel, resin, paint, acid or other dangerous substances. Affected garments may require special washing program
- Contaminated clothing should be transported so that gases are enclosed
- Pressure clothing should be cleaned separately from other garments
- Do not hang the garment in direct sunlight, as UV radiation will eventually weaken the outer fabric.
- Lubricate the zipper if it starts to go slow

Before washing

- Ensure all zips within the garments are fastened, including inspection zips on inside of garment
- Ensure all Velcro® closures are fastened
- Ensure all buttons are closed
- Ensure all pockets are empty
- Remove any detachable ID tags
- Remove all carabine snap hooks
- Relax any adjustable closures, typically in the cuff, collar, ankle, waist
- Check fluorocarbon finish before each wash by using a spray test, re-apply impregnation if needed. Always re-do the impregnation after chemical cleaning.

After washing & drying

- Ensure closures are functioning after wash
- Ensure the fit of garment is still suitable, the garment is not too loose or close fitting
- There is a sufficient overlap between jacket and trouser when performing stretching movements of legs and arms
- There is no damage or soiling
- The clothing is dry on inside and outside
- Perform a spray test to ensure the fluorocarbon finish is functioning
- Check seams integrity or broken stitches
- Check reflective tape condition

Important Notes

- Ensure cleaning is performed by a trained specialist, do not clean in the private household
- Ensure correct cleaning program is used, washing after incidents may require special program
- Follow product care label instructions
- Do not use domestic washing detergents, powders, softeners or whitening agents
- Do not use a tunnel dryer
- Do not iron retro-reflective tape
- Do not wash with combustible materials

Fluorocarbon Re-impregnation

The protective clothing should be re-impregnated regularly using a fluorocarbon resin-based treatment, it is recommended to re-impregnate the finish after 5 washing and drying cycles, the re-impregnation may be necessary after less washes which depends on the use of the garment, therefore it's recommended to test the finish using a spray test before each wash cycle.

Simply spray some water over the garment, if the water is absorbed into the fabric and does not drip off then re-apply the fluorocarbon finish. The re-impregnation can be done easily by adding the right impregnation product to the last of the rinsing water in the washing process

Repairs

The garment should be inspected regularly for any damages, repairs should be performed by a trained specialist, modifications to garment are not allowed. Any repair or modification made by unauthorised service centre will void the warranty. We recommend that the suit be removed from service if the repair costs exceed 50% of the replacement cost. please contact FlamePro Global Ltd for advice.

Storage

Store the garment in dry conditions, not in direct sunlight. Do not store in airtight containers or vacuum packed, do not store at temperatures less than -32°C or above 82°C, do not store in contact with contaminants such as (not limited to) oils, solvents, acids or alkalis

Warranty

1 Year warranty from date of manufacture on structural seams & hardware, subject to wear & tear. Modifications or repairs made by unauthorised specialist will invalidate the warranty.

We recommend care and maintenance in line with BS 8617 which can be obtained from BSI shop (shop.bsigroup.com)

Fabric Systems Compositions

770/775 suit can be made from multiple system options for outer shell, moisture barrier and thermal barrier, please refer to garment care label for the system used. Table below shows the compositions of all options.

Code	Outer shell	Moisture Barrier	Thermal Barrier
EC1	Kermel/Antistatic	3D non-woven of aramid/ePTFE-PU bicomponent	Quilted composite of a needle-felt Arafelt W4222 made of aramid fibres and a fabric made of Kermel/Viscose FR
EC3	Kermel/Antistatic	3D non-woven of aramid/ePTFE-PU bicomponent	Quilted composite of a needle-felt Arafelt W4222 made of aramid fibres and a fabric made of Kermel/Viscose FR
AR1	Meta-aramid/Para-aramid/Antistatic	3D non-woven of aramid/ePTFE-PU bicomponent	Tridex Airflow 3D weave made of Nomex/Viscose FR/ Kevlar/Antistatic
AR2	Nomex meta-aramid / Kevlar para-aramid / anti-static, Petroguard C6+	3D spunlace non-woven meta-aramid /para-aramid ePTFE / PU bi-component membrane	Spunlace non-woven lenzing FR / aramid with liner lenzing FR / aramid / polyamide
AR3	Kermel/Para-aramid/ Anti-static, Petroguard C6+	3D non-woven of aramid/ePTFE-PU bicomponent	Tridex Airflow 3D weave made of Nomex/Viscose FR/ Kevlar/Antistatic
HE3	PBI para-aramid spun yarns with DuPont Kevlar filament	3D non-woven of aramid/ePTFE-PU bicomponent	Tridex Airflow 3D weave made of Nomex/Viscose FR/ Kevlar/Antistatic
HE4	PBI Peak 5 para-aramid spun yarn with DuPont Kevlar filament	3D aramid non-woven bi-component ePTFE/PU membrane	Tridex Airflow 3D weave made of Nomex / viscose FR / Kevlar / antistatic

Fabrics Compositions

Elbow/Shoulder/Tabs Reinforcement
Nomex, Kevlar, Antistatic, PUR

Knee Reinforcement
Para-aramid, antistatic

Puncture resistant reinforcement
Needle-felt made of DuPont™ Kevlar ®

Cuffing
Meta-aramid, viscose FR, Elastane, Polyamide

Padding
Covered Silica, Polyester

Anti-wicking fabric
Aramid, Bicomponent ePTFE/PU membrane, viscose FR

Pocketing material
Modacrylic, cotton, antistatic

