

# ARC FLASH & FLAME RESISTANT GARMENTS

TRUST THE ARC FLASH SPECIALISTS

TO DISCUSS THE SUPPLY OR PURCHASE OF PROGARM ARC FLASH GARMENTS CONTACT:



THORNE &  
DERRICK  
INTERNATIONAL

CALL: 0191 410 4292

OR EMAIL: [UKSALES@THORNEANDDERRICK.CO.UK](mailto:UKSALES@THORNEANDDERRICK.CO.UK)

[WWW.POWERANDCABLES.COM](http://WWW.POWERANDCABLES.COM)



# 7 REASONS TO CHOOSE PROGARM® TODAY

01

## WE'RE THE ARC FLASH SPECIALISTS

The only business in the UK to be 100% focussed on Arc Flash and Flame Resistant clothing. When the lives of your team are at risk, isn't it better to trust a specialist?

02

## INHERENT PROTECTION

Our unique VXS+ fabric is 100% inherent. This means the very fibres provide Flame Resistant protection for the life of the garment. Unlike treated fabrics, that protection doesn't wash out.

03

## DURABILITY MATTERS

We're so confident that our Arc Flash garments last up to 70% longer than other leading brands that we provide a Lifetime Seam Guarantee.

04

## QUALITY ASSURANCE

We hold ISO9001 for Quality Management and Module D accreditation for our supply chain, demonstrating our absolute commitment to production quality at every stage.

05

## SAFETY ON THE BUTTON

Our anti-static ThermSAFE™ components (such as buttons and zips) are made from military-grade polymers, tested to keep working even after an Arc Flash incident.

06

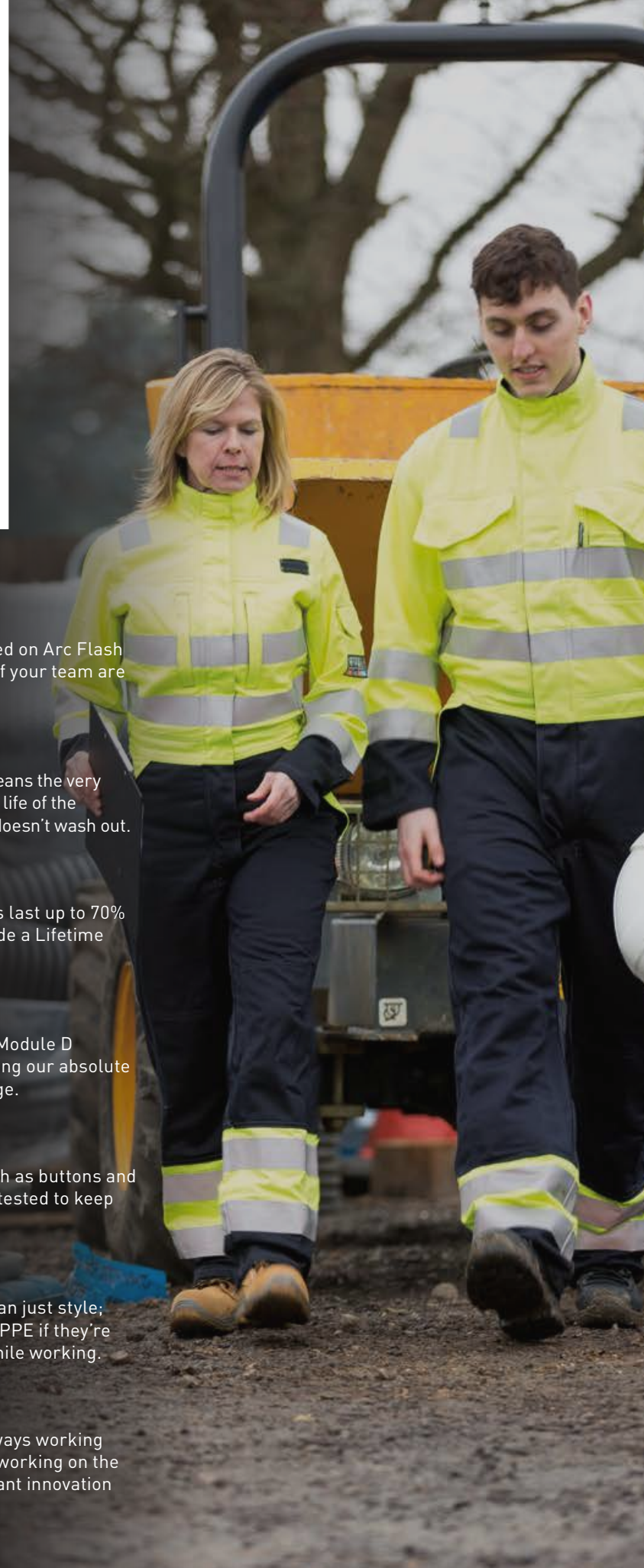
## PRACTICALLY PERFECT

Soft fabrics and handy pockets are for more than just style; your team are far more likely to wear the right PPE if they're comfortable and the garments are practical while working.

07

## WE KEEP INNOVATING

As the industry leaders in innovation, we're always working to make good things better and are constantly working on the next generation of Arc Flash protection. Constant innovation keeps us well ahead of the pack.



## PRODUCT PAGES

18

SINGLE COLOUR  
COLLECTION

30

TWO TONE COLOUR  
COLLECTION

38

HI VIS YELLOW  
COLLECTION

50

HI VIS ORANGE  
COLLECTION

62

BASELAYERS  
COLLECTION

70

HEAD PROTECTION  
PRODUCTS

80

OTHER  
ACCESSORIES

## INFORMATION PAGES

- 04 Welcome to ProGARM®
- 06 ProGARM® Industry Sectors
- 07 What's New
- 08 ProGARM® - The Facts
- 10 VXS+ Fabrics
- 11 Top Class Production
- 12 Great Garments Make ProGARM® the Right Choice
- 14 EN Standards - A Brief Summary
- 15 Arc Flash Explained
- 16 Protection in Layers
- 17 ProGARM® ARC Flash Survey
- 86 Product Care
- 88 PPE Directive
- 89 Care Labels
- 90 EN Standards Explained
- 98 Product EN Standards Matrix
- 106 Branding and Garment Alterations
- 104 Size Chart
- 107 Notes

# CONTENTS

07

WHAT'S  
NEW



17 THE UK'S FIRST  
ARC FLASH SURVEY

10

VXS+  
FABRICS



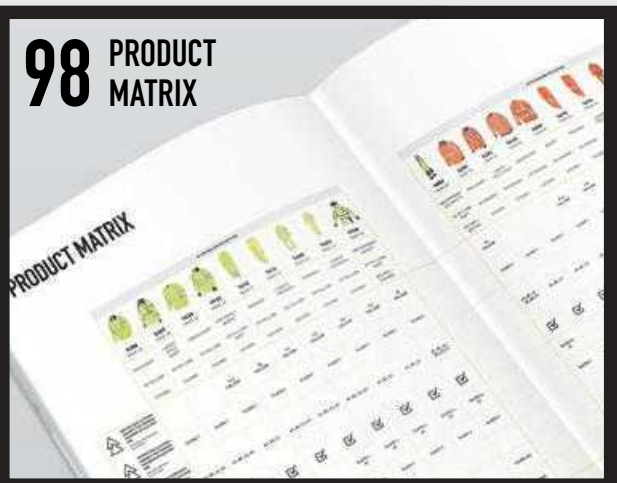
12

GREAT GARMENTS MAKE PROGARM®  
THE RIGHT CHOICE



98

PRODUCT  
MATRIX



88

PPE  
DIRECTIVE





# ARC FLASH PROTECTION: THE NEXT CHAPTER

## YOU CAN DEMAND THE BEST

The safety of your team is paramount, and we provide the ultimate Flame Resistant protection against the life-threatening Arc Flash risks they face every day.

**We're pioneers and we're trailblazers.**

**I know we are leading the industry with our exciting new ranges and safety innovations.**

### BLAZING A TRAIL

Specialising in Arc Flash protection drives us to innovate faster than any generalist PPE supplier and focus 100% on bringing you the best in Arc Flash protection.

### YOUR TEAM DEPEND ON US

To protect them when they need us. That's why we never compromise on safety. On innovation. On comfort, quality or durability. Our garments provide the best possible protection; everyday practicality and comfort.

### BUSINESSES DEPEND ON US

We're trusted by some of the UK's largest brands to keep their teams safe.

### HOW CAN YOU TELL IF YOU'VE GOT THE BEST?

We take such pride in our work that we're massively proud to put our name on it. If you want the best, it will say ProGARM® on the label.

### TALK TO ME

We maintain our industry leading position throughout Europe because we are always listening. If there's something – anything – you want to say, please do get in touch.

**Stay safe and don't compromise.**



**TONY ARNETT**  
Managing Director

To stay safe, they need to wear the right protection. That's why we invest heavily in making our clothes comfortable and practical too. That way they will be happy to wear them.

### DEMAND THE BEST IN SAFETY AND PROTECTION

All our protective garments conform to the European PPE Regulation and display the correct care labels to guarantee certification and traceability.

Often exceeding industry and EN standards, we're always researching and testing materials and designs to lead the way in Arc Flash protection.

### DEMAND THE BEST IN QUALITY, DURABILITY AND VALUE

Our high-quality materials and durable designs mean our garments last up to 70% longer than other brands, providing outstanding value for money.

**We have had these trousers for over 6 months and they are still going strong.**

**Before, we had to replace trousers nearly every three weeks.**

### DEMAND THE BEST IN COMFORT AND INNOVATION

To make sure your colleagues wear the PPE you provide – and wear it correctly – our specialist in-house team has researched and designed both male and female ranges with practicality and wearer comfort in mind.

Breathable, soft to the touch and versatile with useful pockets and design features to suit wearer needs. That's why some of the world's largest businesses rely on us to deliver the protection and comfort their team needs, day in and day out.



# ARC FLASH PROTECTION EXPERTISE IN YOUR SECTOR

## It's our business to know your business

We supply more Arc Flash and Flame Resistant protective garments in the UK than any other company and, to make sure we're giving you what you need to keep your teams safe, we make it our business to understand yours.

We work with a wide range of sectors, particularly traditional and renewable power generation, civil engineering and utilities, rail and petrochemical. We employ Arc Flash protection experts who understand your sector and the associated risks.

### UTILITIES

HSG47 highlights the significant risk of a cable-strike during groundworks and the potentially life-changing injuries or fatal consequences of an Arc Flash incident.

### POWER GENERATION

We understand power station, renewables and transmission environments, and help safeguard your team against both Arc Flash incidents and the weather as needed.

### INDUSTRIAL ELECTRICAL

The EU and HSE are specifying increasing levels of Arc Flash and Flame Resistant protective clothing. We can help you make the right choices.

### RAIL

Our comprehensive range of hi-vis orange garments comply with RIS-3279-TOM (replacing UK G0/RT 3279) and are safe, durable and comfortable for groundworks and electrification projects.

### WINDPOWER

Not only do we understand the specific risks in this sector, but our garments will provide excellent protection against the elements, keeping your team warm and dry as well as the Arc Flash protection to keep them safe.

### PETROCHEMICAL

The similarities between Arc Flash and flash fire incidents mean we've become an established and trusted provider of safety clothing in the petrochemical sector.

# WHAT'S NEW?

## We're continuing to lead the way.

With more new innovations and a culture of consistently improving our products, there's plenty for us to shout about that's new in this edition of our catalogue.



### OUR FIRST EVER ARC FLASH HOOD

We've developed our first Arc Flash Hood to complete our range of head protection and provide a 47 cal/cm<sup>2</sup> solution for electrical engineers.

Pg 78 →

### NEW LIGHTER, MORE DURABLE HI-VIS ORANGE FABRIC

After gathering feedback on our woven Hi-Vis Orange we updated the fabric to provide a lighter and more durable solution for end users in Rail & Utilities. Pg 50 →



### OUR LIGHTEST EVER COVERALL - ARC FLASH PROTECTION AT HALF THE WEIGHT WITH NEW ELIM RATING

The 6460 coverall, weighing in at 160gms becomes the lightest coverall in our range, offering multi-norm protection at a fraction of the weight, perfect for the summer and warmer climates.

Pg 36 →

## 100% FOCUSSED

on Arc Flash protection.

### BRAND NEW LIGHTWEIGHT WATERPROOFS WITH THE BEST WATER RESISTANCE IN THE MARKET

Half the weight, none of the compromise. Our new lightweight waterproofs provide Arc Flash protection with best-in-class water resistance, keeping you both dry and comfortable even in the most testing of environments.



WE'VE MADE FURTHER IMPROVEMENTS TO THE SIZING, CUT AND FIT OF MANY OF OUR GARMENTS, AND EXTENDED OUR WOMENS RANGE TO INCLUDE NEW PRODUCTS WITHIN THE SINGLE COLOUR, HIGH-VIS YELLOW AND HIGH-VIS ORANGE RANGES THROUGHOUT OUR CATALOGUE.


### FULL HEAD-TO-TOE, MULTI-LAYER SOLUTIONS BRAND NEW FR BOOT AND COMPRESSION SOCKS

8 new accessories to compliment your Arc Flash solution including socks, undergarments, gloves and a flame-resistant belt.

Pg 62 →



### SIGNIFICANT CAL RATING UPGRADES

Delivering greater protection without sacrificing comfort and fabric weight. Upgraded garments are marked with the **IMPROVED** icon 

### NEW ARC FLASH DEXTERITY GLOVES

Our 2700 Arc Flash gloves offer supreme comfort, grip and flexibility alongside Cut 5 resistance and protection against Arc Flash in high dexterity scenarios.

Pg 84 →



# PROGARM® QUALITY- THE FACTS

As well as improving safety, our continuous focus on quality means our garments lead the way in comfort, practicality and durability - giving you outstanding value for money by standing up to the rigours of everyday use for longer.



## PRODUCT DEVELOPMENT

We listen to our customers and end users, taking on board feedback and suggestions to develop all our styles, ranges and innovations.



## UNIQUE PROGARM® DESIGNS

Developing our own designs means we can constantly innovate and improve. We can also accommodate any special design requirements that you need.



## ISO9001 AND MODULE D

As well as ISO9001 we are Module D accredited, demonstrating our commitment to high quality standards throughout our supply chain. The result: Better materials, efficient manufacturing and an outstanding customer experience.



## LIFETIME SEAM GUARANTEE

All our garments carry a market-leading lifetime guarantee on all structural seams.



## OEKO-TEX® CERTIFIED

OEKO-TEX® is an independent testing system in textiles, enhancing product safety and sustainable production. Wherever possible, we only use products from OEKO-TEX® approved suppliers.



## DURABILITY

50-wash certified, inherent fabrics, tensile strength and abrasion tested, a lifetime seam guarantee... our longer-lasting garments deliver outstanding value for money.



## QUALITY FABRICS

Our VXS+ fabrics and quality assured manufacturing processes are the foundation of the ProGARM® product range. As well as protection, fabric is selected for durability, performance, comfort and how well it will wash.



## QUALITY COMPONENTS

Our anti-static ThermSAFE™ components (such as buttons, press studs and zips) are made from military-grade polymers, tested and safety approved to continue working after an Arc Flash incident, allowing quick garment removal for First Aid.



## EUROPEAN PRODUCTION

For speed, quality control and traceability, all our garments are made in the EU.



## RIGOROUS PRODUCT TESTING

As well as wearer trials, we also test seams, components and fabrics in specialist lab conditions to understand and maximise performance.



## BSIF REGISTERED SAFETY SUPPLIER

As a BSIF Registered Safety Supplier you can be confident that you're purchasing and using high-quality safety products, correctly tested and certified to meet the appropriate European Standard.



# ABOUT VXS+ FABRICS

## INHERENT VS TREATED FABRICS

VXS+ inherent fabrics give peace of mind and ultimate protection. Unlike chemically treated fabrics, the very fibres of inherent fabrics are Flame Resistant, and because that protection doesn't wash out, the wearer stays safe throughout the life of the garment.

## HIGH-PERFORMING, INNOVATIVE FABRICS FOR ULTIMATE COMFORT AND PROTECTION

For decades, Flame Resistant garments have meant uncomfortable, heavyweight cotton drill fabrics that would shrink extensively with washing. This all changed with the introduction of our VXS+ inherent fabric.

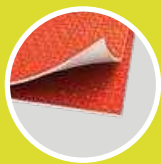


With our ProGARM® VXS+ fabric, wearers can now benefit from:



### ✓ INSTANT EXTINGUISHING PROPERTIES

The fibre blend of our VXS+ fabrics offers outstanding performance compared to treated cotton and more expensive aramid fabrics.



### ✓ GREAT COMFORT

Using advanced textile technology, all of our products are designed for optimum softness, breathability and comfort.



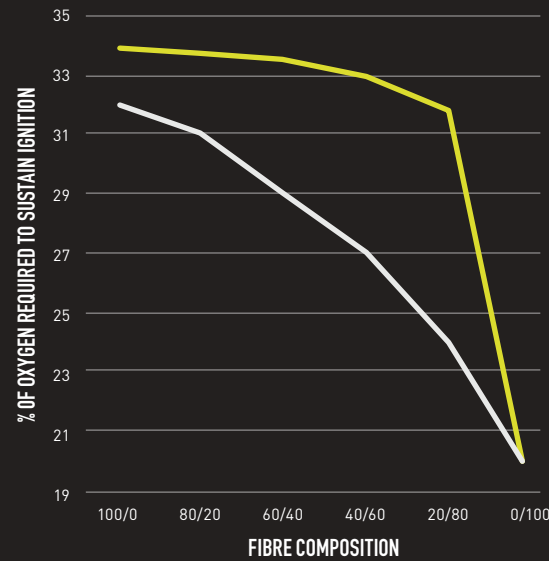
### ✓ HIGHLY DURABLE

After 50 industrial washes, our garments outlive, outshine and outclass the competition in durability, appearance and strength, with excellent colour fastness and less than 3% shrinkage.

## LOI TESTING

Limiting Oxygen Index (LOI) : LOI is the amount of oxygen required in the atmosphere for a material to ignite. With an oxygen percentage of 21% in the earth's atmosphere, anything that has an LOI of less than 21 will burn quickly and easily. An example of this is cotton, which has an LOI of 17.

VXS+ Modacrylic, with an LOI of 34, is much more Flame Resistant than other materials including aramid fibres, which have an LOI of 28-29. That's why VXS+ Modacrylic is - and will always be - the top-performing Flame Resistant solution in the market, especially for severe risks like Electric Arc.



	VXS+ MODACRYLIC & COTTON	STANDARD MODACRYLIC/COTTON
100/0	33.8	32
80/20	33.6	31
60/40	33.4	29
40/60	33	27
20/80	31.8	24
0/100	20	20

# TOP-CLASS PRODUCTION, TOP-CLASS GARMENTS

We're 100% committed to producing the best Arc Flash and Flame Resistant safety wear on the market. We're 100% committed to innovating and producing garments that work and last as they should. And we're 100% committed to quality control.

## GOING THE EXTRA MILE

ISO9001 accreditation is widely known as the recognition of robust company processes, quality control and customer service.

Module D accreditation goes further, and recognises our commitment to quality control throughout our manufacturing supply chain processes such as fibre manufacture, yarn development and dyeing.

Every partner is regularly audited by an independent accredited body, and every batch of fabric is certified and documented as meeting our exacting standards, with batch numbers being included on garment labels for complete traceability.

## RIGOROUS TESTING FOR YOUR REASSURANCE

As part of our rigorous quality control, we test EVERY garment design for protection against Arc Flash. We repeat testing as often as prescribed under the EN Standard but, in practice, we're innovating so regularly that we're usually testing upgraded garments before previously released versions are due to be re-tested.

Even individual components such as zips, buttons and press studs are regularly tested and certified to make sure they're safe, and will keep working after an incident to allow First Aiders to remove garments easily.

We also test all of our garments for their structural integrity in the seams, testing against flame spread, their strength to withstand an Arc Flash and also their durability to stand up to the rigours of day-to-day wear. That's why we can confidently offer our Lifetime Seam Guarantee.

SEAM  
GUARANTEE







#### SAFETYICON MARKINGS

Clear at-a-glance guide to help people choose the right garment for the job, with instant recognition of the protection capabilities

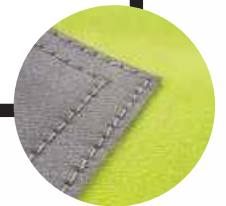
#### TRIPLE STITCHED SEAMS

Increases the durability and life of the garment



#### DOUBLE STITCHED REFLECTIVE TAPE

Ensures reflective tapes stay intact to increase the life of the garment



# GREAT GARMENTS MAKE PROGARM® THE RIGHT CHOICE

All of our garments have innovative features, created with the end-user in mind, and benefit from our unique 100% inherent VXS+ fabrics and ThermSAFE™ components. Here are some of the ways our garments set the standard.

#### EASY-STRETCH PANEL

Improves the range of movement, especially when stretching the arm



#### INTERNAL ELASTICATED WAISTBAND

Gives improved garment fit for safety and comfort



#### GAS MONITOR/RADIO LOOP

A secure location point for a gas monitor, radio or other portable item



#### INTERNAL KNEEPAD POCKETS

Allows kneepads to be added for wearer comfort and protection



# EN STANDARDS AT A GLANCE

You can find more detailed information regarding the above EN standards at the back of the brochure.

For more information on the updated PPE Directive, take a look at our summary on page 76.



## BS EN 1149-5

Protective clothing – Electrostatic Properties

Page: 91



## RIS-3279

Rail industry Standard – High Visibility Clothing

Page: 91



## IEC 61482-2

Protective clothing against the thermal hazards of electric arc

Page: 92



## BS EN ISO 11611

Protective clothing for use in welding and allied processes

Page: 93



## BS EN ISO 20471

High visibility clothing - testing methods and requirements

Page: 94



## BS EN ISO 14116

Protection against heat & flame - limited flame spread

Page: 94



## BS EN ISO 11612

Clothing to protect against heat and flame

Page: 95



## BS EN 13034

Protective clothing against liquid chemicals

Page: 96



## BS EN 342

Protective clothing – protection against cold

Page: 96



## BS EN 343

Protective clothing – protection against rain

Page: 97

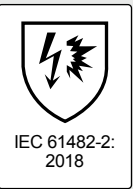


## BS EN 14404

Personal protective equipment, knee protectors for work in the kneeling position

Page: 97

# ARC FLASH PROTECTION IEC 61482 EXPLAINED



## IEC 61482-2: 2018

LIVE WORKING – PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF AN ELECTRIC ARC.

This standard is significantly different to FR standard EN ISO 11612. It includes more rigorous and different requirements, and is the standard for garments to protect those at risk of Arc Flash. The latest update to the standard was in 2018 and contained a couple of important changes to the test methods with regards to the performance ratings of garments.

## SCOPE (EXTRACT FROM THE INTERNATIONAL STANDARD)

This part of IEC 61482 is applicable to protective clothing used in work where there is the risk of exposure to an electric arc hazard.

This standard specifies requirements and test methods applicable to materials and garments for protective clothing for electrical workers against the thermal hazards of an electric arc based on:

- Relevant general properties of the textiles, tested with selected textile test methods
- Arc thermal resistance properties

## TEST METHODS

There are two test methods commonly referred to under the IEC 61482-2: 2018 European Standards:

ProGARM garments are tested using both methods.

### OPEN ARC TEST METHOD: IEC 61482-1-1

This test method gives a Calorific Value (cal/cm<sup>2</sup>) for each garment - expressed as an arc thermal protection value (ATPV), breakopen threshold energy value (EBT) or the incident energy limit (ELIM) and in this way, layered garment systems can be built up with testing results that correspond directly to your Arc Flash Risk Assessments.

### BOX TEST METHOD: IEC 61482-1-2

This test method gives results of either 4kA (APC 1) or 7kA (APC 2) with APC 2 being a higher level of protection and is established in the European market. Garments in the ProGARM® collection do get APC/Class ratings, but the results cannot be directly related to Arc Flash Risk Assessments in the same way that calorific values can be in the Open Arc Test Method.

## CALORIFIC VALUES EXPLAINED

There are now 3 different calorific values given to a garment when it undergoes Open Arc Test Method: IEC 61482-1-1: 2019

### ATPV

The maximum thermal energy the garment can withstand before the wearer would have a **50% probability of 2nd degree burns.**

### EBT50

The value of incident energy at which **breakopen occurs with 50% probability**

### ELIM

The maximum thermal energy the garment can withstand with the wearer having a **0% probability of 2nd degree burns.**

FOR MORE INFORMATION ON ARC FLASH TEST METHODS CALL US ON 01482 679600



# PROTECTION IN LAYERS

## LAYERED PROTECTION WITH PROGARM®

When Arc Flash and Flame Resistant garments are worn in layers, they provide the best “last line of defence against an Arc Flash incident.”

Arc Flash garments should not just be an outer protective layer, as wearing the wrong fabrics even under protective garments can result in injury in the event of an Arc Flash incident. That’s why ProGARM® has developed a total range of garments to protect you and your team that are soft, breathable and comfortable.

By layering garments, you can achieve enhanced protection values, higher than merely the sum of the protection values of the garments. This is because air is a poor conductor of heat. It acts as an insulator and so increases the total calorific value of the garment system.

## ARC RATED CATEGORIES

An arc rated category number is a method to determine the required arc rating of a garment worn for a given work task. Some work tasks will demand wearing protective garments in multiple layers to reach the required level of arc protection, and this information should be provided by an employer as a result of an Arc Flash Assessment.

The NFPA identified four arc risk category levels, which are numbered by severity from 1 to 4 (1 being the lowest). The arc category is the level of Arc Flash protective clothing you must wear to protect against a minimum level of incident energy measured in calories/cm².

This means that electrical equipment, depending upon the energy delivering capability, under fault conditions can cause an explosion, or arc fault of a certain level, again measured in calories/cm². The resulting explosion is able to deliver an amount of heat to a certain distance.

Each level, (0-4) is rated at a certain amount of flame resistance, measured again in calories/cm².

We have undertaken a number of test of combinations of popular garments. Any questions, please contact sales@progarm.com

Combination	Box Test Result	Open Arc Result
5280 Polo shirt + 5630 Sweatshirt	Garment & Fabric Class 2	Garment & Fabric 31cal (Category 3)
6458/6100/6101/7480/7482 Coverall + 5850 Jacket	Fabrics (Class 2)	Garment & Fabric 25.6cal (Category 3)
6458/6100/6101/7480/7482 Coverall + 7638/7636/7418/7414 Trousers	Fabrics (Class 2)	Garment & Fabric 25.6cal (Category 3)
6458/6100/6101/7480/7482 Coverall + 5200 IMPROVED Polo shirt	-	Garment & Fabric 28.5cal (Category 3)

ProGARM®  
5280 POLO SHIRT AND  
5282 POLO SHIRT

ARC 1  
7 cal



+

ProGARM®  
5630 SWEATSHIRT

ARC 2  
14 cal



=

ARC 3  
31 cal

# THE UK'S FIRST ARC FLASH SURVEY

Together with the British Safety Industry Federation (BSIF), ProGARM® commissioned a study into electrical safety across the UK in a bid to shine a spotlight on the potentially life-changing and fatal risks of Arc Flash.

Alarming, it reveals a lack of awareness at every level of current safety standards governing Arc Flash and an apparent failure from employers to properly educate staff about this high-risk threat.

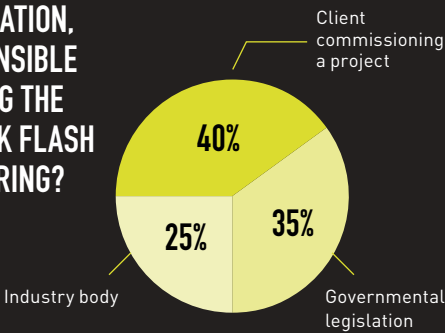
We commissioned the survey to help us better support our customers and their industries in adopting health and safety best practice, and sought the views from 200 UK industry professionals across the rail, power generation, industrial electrical, utilities and petrochemical sectors.

It is thought to be the first national research exercise of its type ever conducted into Arc Flash, and gathered feedback from site-based employees as well as senior management teams/employers.

57%  
ADMITTED THAT THEY (OR  
SOMEONE THEY WORK WITH)  
HAVE SUFFERED AN ARC  
FLASH STRIKE



IN AN ORGANISATION,  
WHO IS RESPONSIBLE  
FOR MINIMISING THE  
RISK OF AN ARC FLASH  
STRIKE OCCURRING?



80%  
BELIEVE EXISTING  
GOVERNMENT LEGISLATION  
IS TOO AMBIGUOUS

50%  
CONSIDER IT TO BE THE EMPLOYEE'S  
RESPONSIBILITY TO SELF-EDUCATE  
ON ARC FLASH



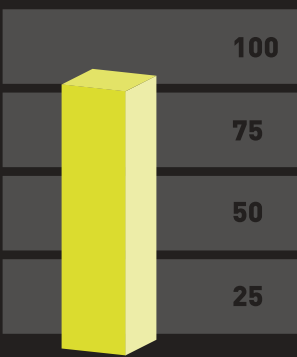
84%  
CLAIMED THEY UNDERSTAND  
THE RISKS ASSOCIATED  
WITH ARC FLASH



90%  
believe that there is  
a pressing need for  
the Government to  
develop more specific  
guidelines and legislation  
surrounding Arc Flash



78%  
OF RESPONDENTS DID  
NOT KNOW THE CORRECT  
GOVERNMENT SAFETY  
GUIDANCE – HSG47







ProGARM®

# SINGLE COLOUR COLLECTION

100%  
INHERENT



## ✓ INHERENT PROTECTION

Flame Resistant properties last the lifetime of the fabric and do not wash out

## ✓ GREAT COMFORT

Breathable, soft to wear and fantastic to the touch

## ✓ INSTANT EXTINGUISHING PROPERTIES

Ultimate protection against Flame and Arc Flash hazards

## ✓ HIGHLY DURABLE

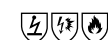
Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



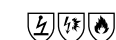
## 5200 POLO SHIRT

Page 20



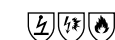
## 5280 POLO SHIRT

Page 21



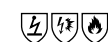
## 5630 SWEATSHIRT

Page 22



## 5430 T-SHIRT

Page 23



## 9931 SOFTSHELL JACKET

Page 24



## 5850 JACKET

Page 25



## 5790 LINED FLEECE

Page 25



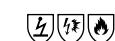
## 7638 TROUSER

Page 26



## 7720 COMBAT TROUSER & 7721 DETACHABLE POCKET

Page 27



## 6100 COVERALL

Page 28





5200

POLO SHIRT

SIZES: S-4XL

IMPROVED

Colour matched to other navy ProGARM® garments

Enclosed stud placket allows quick fastening

Rib knit cuffs

Natural feel, comfortable and soft

SEAM GUARANTEE

5202

LADIES POLO SHIRT

SIZES: 8-22

NEW

Cut in a specific women's fit

PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION: ProGARM® VXS+ Inherent Interlock Fabric, Navy - 260gms  
LOI: 31.2%  
PRODUCT CARE:

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50+ 14.2cal/cm²

BOX TEST

4KA
CLASS 1

ARC RATING

14.2CAL
ARC 2

FABRIC

VXS+
INHERENT

5280

POLO SHIRT

SIZES: S-4XL

ThermSAFE™ plastic FR poppers

Colour matched to other navy ProGARM® garments

SafetyICON™ on arm

SEAM GUARANTEE

5282

LADIES POLO SHIRT

SIZES: 8-22

NEW

Cut in a specific women's fit

PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION: ProGARM® VXS+ Inherent Pique Fabric, Navy - 210gms  
LOI: 34.3%  
PRODUCT CARE:

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 ATPV+ 7cal/cm²

BOX TEST

4KA
CLASS 1

ARC RATING

7CAL
ARC 1

FABRIC

VXS+
INHERENT

PROTECTION IN LAYERS

5280 or 5282 Polo Shirt + 5630 Sweatshirt = ARC 3 protection with 31.0cal/cm²





5630

# SWEATSHIRT

SIZES: S-4XL

- ✓ Brushed fleece inner // Winter warmth
- ✓ VXS+ blend // Natural feel, comfortable and soft
- ✓ Breathable // Good moisture management
- ✓ Round neck collar with stretch rib // Smart appearance
- ✓ 5cm stretch rib hem // Best fit around waist
- ✓ Rib knit cuffs // Close fit
- ✓ Colour matched to other navy ProGARM® garments // Best appearance
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ Arm pocket // Useful pocket for phone or small items

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50= 14.4cal/cm²

BOX TEST

4KA
CLASS 1

ARC RATING

14.4CAL
ARC 2

FABRIC

VXS+
INHERENT

PROTECTION IN LAYERS

5280 or 5282 Polo Shirt + 5630 Sweatshirt = **ARC 3** protection with **31.0cal/cm²**

PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION:  
ProGARM® VXS+ Inherent  
Sweat Fabric, Navy - 320gms  
LOI: 30.8%  
PRODUCT CARE:

**SEAM GUARANTEE**

5430

# T-SHIRT

SIZES: S-4XL



Colour matched to other navy ProGARM® garments

Open cuffs for a relaxed fit

PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION:  
ProGARM® VXS+ Inherent  
jersey Fabric, Navy - 200gms  
PRODUCT CARE:

**SEAM GUARANTEE**

- ✓ VXS+ blend // Natural feel, comfortable and soft
- ✓ Breathable // Good moisture management
- ✓ Generous length // Maximum protection
- ✓ Colour matched to other navy ProGARM® garments // Best appearance
- ✓ SafetyICON™ on arm // Visual EN Standard icon system

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1

BOX TEST

4KA
CLASS 1

ARC RATING

NOT TESTED
------------

FABRIC

VXS+
INHERENT



Microfleece  
lining for extra  
warmth

Radio loop on  
left breast

Zipped Napoleon  
pocket with  
integrated  
phone pocket

**IMPROVED**

#### PRODUCT INFORMATION

COLOUR: Navy

FABRIC SPECIFICATION:  
VXS+ Inherent Woven Weave  
fabric with Waterproof  
Membrane – 340gms

PRODUCT CARE:



**SEAM  
GUARANTEE**

**9931**

# SOFTSHELL JACKET

SIZES: S-4XL

- ✓ Elasticated inner cuffs // Wind proofing
- ✓ Velcro® fastening tabs on cuffs and back // Improved fit
- ✓ Zipped Napoleon pocket on left breast with incorporated phone pocket // Safe and secure
- ✓ Inner pockets on right breast // Storage space
- ✓ Covered, zipped hand pockets // Keeps out debris and keeps contents secure
- ✓ Mandarin collar // Maximum neck protection
- ✓ Microfleece lining // Warmth and comfort
- ✓ Easy Stretch side panels // Wear comfort
- ✓ Extended back // Protection when bending over
- ✓ SafetyICON™ on arm // Visual EN standard
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ ThermSAFE™ two-way plastic FR Zipper // Flexibility

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1, F1	Pl. 5:2008 Pl. 3:2004 Charge Decay	Class 2 ATPV= 28cal/cm²

#### BOX TEST

<b>7KA</b>
<b>CLASS 2</b>

#### ARC RATING

<b>28CAL</b>
<b>ARC 3</b>

#### FABRIC

<b>VXS+</b>
<b>INHERENT</b>



**5850**

## JACKET

SIZES: S-4XL

- ✓ Mandarin collar // Maximum neck protection
- ✓ One front pocket with zippers // Secure storage
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Phone pocket on sleeve with flap // Safe and secure
- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves
- ✓ Side access pockets with flaps // Prevents entry of debris
- ✓ ThermSAFE™ plastic FR zipper // CE Certified
- ✓ Extended back // Protection when bending over
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wearer comfort

#### PRODUCT INFORMATION

COLOUR: Navy

FABRIC SPECIFICATION:  
VXS+ 250W 250g/m² Woven Inherent Fabric

LOI: 30.6%

PRODUCT CARE:



**SEAM  
GUARANTEE**

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015
A1, B1, C1	Pl. 5:2008 Pl. 3:2004 Charge Decay	Class 1 EPT50= 9.5cal/cm²	Class 1, A1

#### BOX TEST

<b>4KA</b>
<b>CLASS 1</b>

#### ARC RATING

<b>9.5CAL</b>
<b>ARC 2</b>

#### FABRIC

<b>VXS+</b>
<b>INHERENT</b>



**5790**

## LINED FLEECE

SIZES: S-4XL

- ✓ Mandarin collar // Maximum neck protection
- ✓ Two front pockets with zippers // Secure storage
- ✓ Internal pocket // Secure Velcro® tab
- ✓ Now fully lined // Extra warmth & protection
- ✓ Drawcord waist adjustment with toggles // Close waist fit
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ Elasticated cuff // Close fit around wrist
- ✓ ThermSAFE™ plastic FR zipper // CE Certified
- ✓ Extended back // Protection when bending over

#### PRODUCT INFORMATION

COLOUR: Navy

FABRIC SPECIFICATION:  
Outer Layer: VXS+ 310F 300g/m² Fleece Inherent Fabric  
Lining: VXS+ 230C 230g/m² Woven Fabric

PRODUCT CARE:



**SEAM  
GUARANTEE**

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1	Pl. 5:2008 Pl. 3:2004 Charge Decay	Class 1 EPT50= 32.3cal/cm²

#### BOX TEST

<b>4KA</b>
<b>CLASS 1</b>

#### ARC RATING

<b>32.3CAL</b>
<b>ARC 3</b>

#### FABRIC

<b>VXS+</b>
<b>INHERENT</b>



7638

TROUSER

SIZES:  
30"- 52" Reg leg (32"/81cm)  
32"- 44" Tall leg (34"/86cm)  
32"- 42" Short leg (30"/76cm)



SEAM GUARANTEE

7636

LADIES TROUSERS

SIZES:  
8-24 Reg leg (30"/76cm)  
8-24 Tall leg (32"/81cm)



PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION:  
VXS+ 250W 250g/m² Woven  
Inherent Fabric  
LOI: 30.6%  
PRODUCT CARE:  
60/30/30/30/30/30

- ✓ Combat pocket with flap // Safe storage space
- ✓ Mobile phone pocket // Keep your phone safe
- ✓ Side access pockets // Traditional style
- ✓ Extra wide belt loop at rear // Prevents belt riding up
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ SafetyICON™ on leg pocket // Visual EN Standard icon system
- ✓ Rear pockets with flap // Secure storage space
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Reinforced crotch // Improved longevity
- ✓ ThermSAFE™ Jeans button // Jeans style fastening

EN STANDARDS

EN ISO 11611: 2015	EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
Class 1, A1	A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50+ 9.5cal/cm²

BOX TEST



ARC RATING



FABRIC



7720

COMBAT TROUSER

SIZES:  
30"- 52" Reg leg (31"/80cm)  
30"- 44" Tall leg (33"/85cm)  
32"- 42" Short leg (30"/76cm)



SEAM GUARANTEE

7721

DETACHABLE HOLSTER POCKET



Order Separately

PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION:  
VXS+ Woven Inherent Fabric,  
300gms  
PRODUCT CARE:  
60/30/30/30/30/30

- ✓ Combat pocket with flap // Safe storage space
- ✓ External kneepad pockets // Wear with ProGARM® 2240 kneepads for extra protection
- ✓ Mobile phone pocket // Keeps your phone safe
- ✓ Side access pockets // Additional storage
- ✓ Extra wide belt loop at rear // Prevents belt riding up
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ SafetyICON™ on leg pocket // Visual EN Standard icon system
- ✓ Reinforced crotch // Improved longevity
- ✓ Reinforced long hem // Stronger leg hem, ability to extend/shorten leg
- ✓ ThermSAFE™ Jeans button // Jeans style fastening

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	CLASS 1 EBT50+ 12.8cal/cm²

BOX TEST



ARC RATING



FABRIC





6100

## COVERALL

**SIZES:**  
S-4XL, Reg leg (31"/80cm)  
M-2XL, Tall leg (33"/85cm)  
Short leg by re-hemming

Internal elasticated  
waistband for  
improved fit

Double  
stitched  
5cm FR AS  
Reflective  
Tape

Velcro®  
secured  
cuff tabs

AVAILABLE  
IN ORANGE

**SEAM  
GUARANTEE**

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Chest pockets with zippers // Secure storage
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ Phone pocket on sleeve with flap // Safe and secure
- ✓ Side access pockets // With access inside the coverall
- ✓ ThermSAFE™ plastic FR Zippers // CE Certified
- ✓ Internal elastic 2 point adjustable waistband // Ensures close fit
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wear comfort
- ✓ Action back for improved comfort

## EN STANDARDS

--	--	--	--

## BOX TEST



## ARC RATING



## FABRIC



6101

LADIES  
COVERALL

**SIZES:**  
8-22, Reg leg (29"/75cm)  
8-22, Tall leg (31"/80cm)



Cut in a  
specific  
women's fit

## PRODUCT INFORMATION

**COLOUR:** Navy

**FABRIC SPECIFICATION:**  
VXS+ 250W 250g/m²  
Woven Inherent Fabric

**LOI:** 30.6%

**PRODUCT CARE:**



“The ProGARM® FR garments are outstanding – we have washed them 50 times including putting them through the tumble dryer and shrinkage is less than 3% as stated!”





100%  
INHERENT

ProGARM®

# TWO TONE COLOUR COLLECTION

For full Product Matrix outlining EN Standards, see page 98

- ✓ **INHERENT PROTECTION**  
Flame Resistant properties last the lifetime of the fabric and do not wash out
- ✓ **INSTANT EXTINGUISHING PROPERTIES**  
Ultimate protection against Flame and Arc Flash hazards
- ✓ **GREAT COMFORT**  
Breathable, soft to wear and fantastic to the touch
- ✓ **HIGHLY DURABLE**  
Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



5808 JACKET

Page 32



LADIES  
AVAILABLE  
5814

5816 TROUSER

Page 33



6458 COVERALL

Page 34



LADIES  
AVAILABLE  
6446

6444 COVERALL

Page 35



NEW

6460 COVERALL

Page 36



NEW

4658 COVERALL

Page 37





5808

## JACKET

SIZES: S-4XL

- ✓ Mandarin collar // Maximum neck protection
- ✓ Two front pockets with zippers // Secure storage
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Phone Pocket on sleeve with flap // Safe and secure
- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves

## EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN 13034: 2005
A1, B1, C1, D1, E1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50=12cal/cm²	Class 1, A1	Type PB (6) +A1:2009

## BOX TEST



## ARC RATING



## FABRIC



SEAM GUARANTEE

## PRODUCT INFORMATION

COLOUR: Navy/Yellow

FABRIC SPECIFICATION:  
VXS+ 300W 300g/m2 Woven  
Inherent Fabric with FC Finish

LOI: 29.3%

PRODUCT CARE:

Double stitched reflective tape on HV yellow shoulder

Secure Gas Monitor Loop

IMPROVED

Adjustable waist fastening for improved fit

5816

## TROUSER

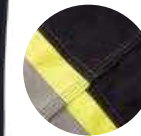
SIZES:  
30"-52" Reg leg (32"/81Cm)  
30"-44" Tall leg (34"/86Cm)  
32"-42" Short leg (30"/76Cm)

IMPROVED



Side pockets with flaps to prevent debris

Triple needle stitch seams for extra longevity



Internal kneepad pocket to fit ProGARM™ 2240 Kneepad

SEAM GUARANTEE

- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Combat pocket with flap // Safe storage space
- ✓ Mobile phone pocket // Keep your phone safe
- ✓ Side access pockets with flaps // Protects from debris entry
- ✓ Extra wide belt loop at rear // Prevents belt riding up
- ✓ ThermSAFE™ plastic FR zipper // CE Certified
- ✓ SafetyICON™ on leg pocket // Visual EN Standard icon system
- ✓ Two rear pockets with flaps // Secure storage space
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Reinforced crotch // Improved longevity
- ✓ ThermSAFE™ Jeans button // Jeans style fastening

## EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN 13034: 2005
A1, B1, C1, D1, E1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50=12cal/cm²	Class 1, A1	Type PB (6) +A1:2009

## BOX TEST



## ARC RATING



## FABRIC



5814

## LADIES TROUSER

SIZES:  
8-22 Reg leg (30"/76Cm)  
8-22 Tall leg (32"/81Cm)

IMPROVED



## PRODUCT INFORMATION

COLOUR: Navy/Yellow

FABRIC SPECIFICATION:  
VXS+ 300W 300g/m2 Woven  
Inherent Fabric with FC Finish

LOI: 29.3%

PRODUCT CARE:

6458

## COVERALL

SIZES: S-4XL, Regular leg (31"/80cm)  
S-2XL, Short leg (29"/75cm)  
M-2XL, Tall leg (33"/85cm)

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Expandable ankle opening with zippers // Easy removal
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ 5cm Heat Applied Reflective Tape // Lighter weight
- ✓ Combat pocket on leg plus sleeve pocket // Ample space

## EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN ISO 20471: 2013
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50=9.5cal/cm²	Class 1, A1	Class 3

## BOX TEST



## ARC RATING



## FABRIC



**SEAM GUARANTEE**

## PRODUCT INFORMATION

COLOUR: Navy/Yellow  
FABRIC SPECIFICATION:  
VXS+ 240W 240g/m² Woven  
Inherent Fabric  
LOI: 30.6%  
PRODUCT CARE:

Vertical chest pockets for use with harnesses

Internal elasticated waistband for improved fit

Combat pocket on leg

6444

## COVERALL

SIZES:  
38 - 60 Regular leg (31"/80cm)  
40 - 52 Tall leg (33"/85cm)

IMPROVED



Adjustable cuff with ThermSAFE™ fastening

Chest pockets with zippers for secure storage

ThermSAFE™ plastic FR zippers

**SEAM GUARANTEE**

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Chest pockets with zippers // Secure storage
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Phone pocket on sleeve with flap // Safe and secure
- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves
- ✓ Side access pockets // With entry inside coverall
- ✓ ThermSAFE™ plastic FR Zippers // CE Certified
- ✓ Internal elastic 2 point adjustable waistband // Ensures close fit
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wear comfort
- ✓ Action back for improved comfort

## EN STANDARDS\*

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 13034: 2005
A1, B1, C1, D1, E1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50=12cal/cm²	Class 1, A1	Class 3	Type PB (4) +A1:2009

\*6444 meets Class 2 and 6444 meets Class 3

## BOX TEST



## ARC RATING



## FABRIC



6446

## LADIES COVERALL

SIZES:  
8-22 Reg leg (76cm)  
8-22 Tall leg (81cm)

IMPROVED



## PRODUCT INFORMATION

COLOUR: Navy/Yellow  
FABRIC SPECIFICATION:  
VXS+ 300W 300g/m² Woven  
Inherent Fabric with FC Finish  
LOI: 29.3%  
PRODUCT CARE:



6460

## COVERALL

SIZES: S-4XL, REG LEG (31"/80cm)  
M-2XL, TALL LEG (33"/85cm)

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra comfort
- ✓ Vertical zip chest pockets // Accessible when wearing a harness
- ✓ Expandable ankle opening with zippers // Easy removal
- ✓ SafetyICON™ on arm // Visual EN Norm icon system
- ✓ 5cm Heat Applied Reflective Tape // Lighter weight
- ✓ Combat pocket on leg plus sleeve pocket // Ample space
- ✓ Cuff tabs with VELCRO® Brand fasteners // Close fit around
- ✓ Side access pockets // With entry inside coverall
- ✓ ThermSAFE™ plastic FR Zippers // CE Certified
- ✓ Internal elastic 2 Point adjustable waistband // Ensures close fit
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wear comfort

## EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 20471: 2013	IEC 61482-2: 2018
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 3	APC1 ELIM=5cal/cm² EBT50=5.8cal/cm²

## BOX TEST



## ARC RATING



## FABRIC



NEW

Internal elasticated waistband for improved fit

IMPROVED

## PRODUCT INFORMATION

COLOUR: Navy/Yellow  
FABRIC SPECIFICATION:  
VXS+ 160W 160g/m2 Woven  
Inherent Fabric  
PRODUCT CARE:



SEAM  
GUARANTEE



4658

## COVERALL

SIZES:  
S-4XL REG LEG (31"/80cm)  
M-2XL TALL LEG (33"/85cm)

Adjustable cuff with ThermSAFE™ fastening

ThermSAFE™ plastic FR zippers

Chest pockets with zippers for secure storage

NEW

IMPROVED

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra comfort
- ✓ Vertical zip chest pockets // Accessible when wearing a harness
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Norm icon system
- ✓ 5cm Heat Applied Reflective Tape // Lighter weight
- ✓ Phone pocket on sleeve with flap // Safe and secure
- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves
- ✓ Side access pockets with flaps // With entry inside coverall
- ✓ ThermSAFE™ plastic FR zippers // CE Certified
- ✓ Internal elastic 2Point adjustable waistband // Ensures close fit
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wear comfort
- ✓ Combat pocket on leg plus sleeve pocket // Ample space
- ✓ Expandable ankle opening with zippers // Easy removal

## PRODUCT INFORMATION

COLOUR: HV Orange / Navy  
FABRIC SPECIFICATION:  
ProGARM VXS+ Inherent Woven  
Fabric, HV Orange - 290gms  
ProGARM VXS+ Inherent Woven  
Fabric, Navy - 240gms  
PRODUCT CARE:



SEAM  
GUARANTEE



## EN STANDARDS

EN ISO 11612: 2015	EN ISO 20471: 2013	IEC 61482-2: 2018	RIS 3279	EN ISO 11611: 2015	EN 1149-5: 2008
A1, B1, C1, F1	Class 3	ATPV = 8cal/cm² APC 1	Issue 1	Class 1, A1	Pt. 5:2008 Pt. 3:2004 Charge Decay

## BOX TEST



## ARC RATING



## FABRIC







100%  
INHERENT

ProGARM®

# HI VIS YELLOW COLLECTION

For full Product Matrix outlining EN Standards, see page 98

✓ **INHERENT PROTECTION**

Flame Resistant properties last the lifetime of the fabric and do not wash out

✓ **GREAT COMFORT**

Breathable, soft to wear and fantastic to the touch

✓ **INSTANT EXTINGUISHING PROPERTIES**

Ultimate protection against Flame and Arc Flash hazards

✓ **HIGHLY DURABLE**

Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



## 5286 POLO SHIRT

Page 40



## 5626 SWEATSHIRT

Page 41



## 9930 SOFTSHELL JACKET

Page 42



## 7418 TROUSER

Page 43



## 9750 WATERPROOF JACKET

Page 44



## 9880 WATERPROOF SALOPETTES

Page 45



## 7480 COVERALL

Page 46



## 9720 LIGHTWEIGHT WATERPROOF JACKET

Page 47



## 9820 LIGHTWEIGHT WATERPROOF SALOPETTES

Page 48





5286

POLO SHIRT

SIZES: S-4XL



Heat applied stretch tape for additional comfort



Enclosed fastenings on placket



Stretch cuff with Lycra®

**SEAM GUARANTEE**

- ✓ Enclosed stud placket // Allows quick fastening
- ✓ VXS+ blend // Natural feel, comfortable and soft
- ✓ Breathable // Good moisture management
- ✓ ThermSAFE™ plastic FR poppers // CE Certified
- ✓ Knitted collar with tipping // Ensures best appearance after washing
- ✓ Contrast colour collar // Stylish and practical
- ✓ Rib knit cuffs // Close fit
- ✓ SafetyICON™ on arm // Visual EN Standards icon system
- ✓ 5cm FR AS Reflective tape // Heat applied to improve flexibility

5287

LADIES POLO SHIRT

SIZES: 8-22



PRODUCT INFORMATION

COLOUR: HV Yellow  
FABRIC SPECIFICATION: ProGARM® VXS+ Inherent Pique Fabric, HV Yellow - 210gms  
PRODUCT CARE:

EN STANDARDS*			
EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 20471: 2013
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1	Class 3

BOX TEST	ARC RATING	FABRIC
CLASS 1	NOT TESTED	INHERENT

\*5287 meets Class 2 and 5286 meets Class 3

5626

SWEATSHIRT

SIZES: S-4XL



Round neck collar with stretch rib

Twin needle stitch on neckline



Ultra-soft and durable VXS+ fabric



Rib knit cuff with Lycra® for comfort and close fit

PRODUCT INFORMATION

COLOUR: HV Yellow  
FABRIC SPECIFICATION: ProGARM® VXS+ Inherent Sweat Fabric, HV Yellow - 320gms  
LOI: 30.8%  
PRODUCT CARE:

**SEAM GUARANTEE**

- ✓ VXS+ blend // Natural feel, comfortable and soft
- ✓ Breathable // Good moisture management
- ✓ Rib knit cuffs // Close fit
- ✓ SafetyICON™ on arm // Visual EN Standards icon system
- ✓ 5cm FR AS Reflective Tape // Heat applied to improve flexibility
- ✓ Brushed fleece inner // Winter warmth
- ✓ Round neck collar with stretch rib // Smart appearance
- ✓ 5cm stretch rib hem // Best fit around the waist
- ✓ Arm pocket // Useful pocket for phone or small items

EN STANDARDS			
EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 20471: 2013
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50+ 13.2cal/cm²	Class 3

BOX TEST	ARC RATING	FABRIC
CLASS 1	ARC 2	INHERENT

Covered zipped hand pockets

Adjustable waist strap with ThermSAFE™ hook and loop

Adjustable cuff with soft cuffing on inside for extra warmth

IMPROVED

#### PRODUCT INFORMATION

COLOUR: HV Yellow / Navy

FABRIC SPECIFICATION:  
VXS+ Inherent Woven Weave fabric with Waterproof Membrane—340gms

PRODUCT CARE:



**SEAM GUARANTEE**

9930

# SOFTSHELL JACKET

SIZES: S-4XL

- ✓ Two tone design // Practical and stylish
- ✓ Elasticated inner cuffs // Wind proofing
- ✓ Velcro® fastening tabs on cuffs and back // Improved fit
- ✓ Radio loop attaching point on left breast
- ✓ Zipped Napoleon pocket on left breast with incorporated phone pocket // Safe and secure
- ✓ Inner pockets on right hand breast // Storage space
- ✓ Covered, zipped hand pockets // Keeps out debris and keeps contents secure

- ✓ Mandarin collar // Maximum neck protection
- ✓ 50mm double stitched reflective tape // Increased durability
- ✓ Microfleece lining // Warmth and comfort
- ✓ Easy Stretch side panels // Wearer comfort
- ✓ Extended back // Protection when bending over
- ✓ SafetyICON™ on arm // Visual EN standard
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ ThermSAFE™ two-way plastic FR Zipper // Flexibility

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 20471: 2013
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 2 EBT50= 28cal/cm²	Class 3 excludes Clause 5.6

#### BOX TEST



#### ARC RATING



#### FABRIC



7418

## TROUSER

SIZES: 30 - 52 Regular Leg (31"/80cm)  
30 - 44 Tall leg (33"/85cm)  
32 - 42 Short leg (30"/76cm)



Combat pocket on right leg with SafetyICON™ EN Standard identification



Triple needle stitch seams for extra longevity



**SEAM GUARANTEE**

- ✓ Combat pocket with flap // Safe storage space
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Mobile phone pocket // Keeps your phone safe
- ✓ Side access pockets with flaps // Protects from debris entry
- ✓ Extra wide belt loop at rear // Prevents belt riding up
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ SafetyICON™ on leg pocket // Visual EN Standards icon system
- ✓ Rear pockets with flap // Secure storage space
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Reinforced crotch // Improved longevity
- ✓ ThermSAFE™ Jeans button // Jeans style fastening

#### EN STANDARDS\*

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN ISO 20471: 2013
A1, B1, C1, E1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50= 9.5cal/cm²	Class 1, A1	Class 2

#### BOX TEST



#### ARC RATING



#### FABRIC



\*7418 meets Class 1 and 7418 meets Class 2

7414

## LADIES TROUSER

SIZES:  
8 - 22 Regular leg (30"/76cm)  
8 - 22 Tall leg (32"/81cm)



NEW

#### PRODUCT INFORMATION

COLOUR: HV Yellow

FABRIC SPECIFICATION:  
VXS+ HVY250W 250g/m² Woven Inherent Hi-Visibility Fabric

LOI: 30.6%

PRODUCT CARE:







### 9751 HELMET HOOD

Replaces standard hood with larger one to cover our range of Helmets.  
Sold separately

**SEAM  
GUARANTEE**



No seams on shoulders to improve durability and comfort whilst wearing harness

#### PRODUCT INFORMATION

COLOUR: HV Yellow / Navy

FABRIC SPECIFICATION:

Outer Layer: VXS+ Inherent Special Weave Fabric with Waterproof Membrane - 395gms

Lining Layer: VXS+ Inherent Woven fabric - 200gms

LOI: 27.0%

PRODUCT CARE:



9750

# WATERPROOF JACKET

SIZES: S-4XL

- ✓ Two tone design // Practical and stylish
- ✓ Elasticated inner cuffs // Wind proofing
- ✓ Storm flap // Wind proofing
- ✓ Taped seams // Waterproof // Windproof
- ✓ Velcro® fastening tabs on cuffs and back // Improved fit
- ✓ Fully adjustable, fold away hood with Velcro® // Safety and comfort
- ✓ Radio loop attaching point on left breast
- ✓ Zipped Napoleon pocket on left breast with incorporated phone pocket // Safe and secure

- ✓ Inner pockets on right hand breast // Storage space
- ✓ Covered, zipped hand pockets // Keeps out debris and keeps contents secure
- ✓ Mandarin collar // Maximum neck protection
- ✓ 50mm double stitched reflective tape // Increased durability
- ✓ Fully lined // Warmth and comfort
- ✓ Easy stretch side panels // Wearer comfort
- ✓ Extended back // Protection when bending over
- ✓ SafetyICON™ // Visual EN Standard
- ✓ ThermSAFE™ plastic FR zipper // CE Certified

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018
A1, B1, C1, D2, E3, F1	Pl. 5:2008 Pl. 3:2004 Charge Decay	Class 2, A1	Class 2		Type PB (6) +A1: 2009	ATPV= 47cal/cm²	Class 2

#### BOX TEST



#### ARC RATING



#### FABRIC



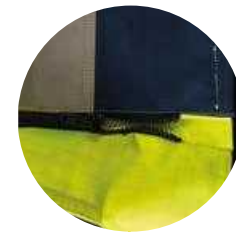
# WATERPROOF SALOPETTES

SIZES: S-4XL

Removable and adjustable braces



Expandable ankle opening with zipper



#### PRODUCT INFORMATION

COLOUR: HV Yellow / Navy

FABRIC SPECIFICATION:

Outer Layer: VXS+ Inherent Special Weave Fabric with Waterproof Membrane - 395gms

Lining Layer: VXS+ Inherent Woven fabric - 200gms

LOI: 27.0%

PRODUCT CARE:



Salopettes are part of 2 garment set and should be worn with the compatible jacket (9750)

**SEAM  
GUARANTEE**



- ✓ 70mm double stitched reflective tape // Increased durability
- ✓ Combat pocket with phone pocket // Convenience and storage space
- ✓ 2 side pockets // Storage space
- ✓ Side access // For use as overtrousers
- ✓ Fully lined // Warmth and comfort

- ✓ Removable & adjustable suspenders
- ✓ Suspender back plate // Adjustable for comfort
- ✓ SafetyICON™ on arm // Visual EN Certified
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ Extra wide belt loop at rear // Prevents belt riding up

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018
A1, B1, C1, D2, E3, F1	Pl. 5:2008 Pl. 3:2004 Charge Decay	Class 2, A1	Class 2		Type PB (6) +A1: 2009	ATPV= 47cal/cm²	Class 2

#### BOX TEST



#### ARC RATING



#### FABRIC





7480

## COVERALL

**SIZES:**  
S - 4XL, Reg leg (31"/80cm)  
M - 2XL, Tall leg (33"/85cm)

Featuring  
Flame Resistant  
ThermSAFE™  
hook and loop

Double  
stitched  
5cm FR AS  
Reflective  
Tape

Side access  
pockets

**SEAM  
GUARANTEE**

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Chest pockets with flaps // Secure storage
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Standards icon system
- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Phone pocket on sleeve with flap // Safe and secure
- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves
- ✓ Side access pockets // With entry inside coverall
- ✓ ThermSAFE™ plastic FR Zippers // CE Certified
- ✓ Internal elastic 2 point adjustable waistband // Ensures close fit
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wear comfort

### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN ISO 20471: 2013
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 1 EBT50= 9.5cal/cm²	Class 1, A1	Class 3

### BOX TEST

4KA
<b>CLASS 1</b>

### ARC RATING

9.5CAL
<b>ARC 2</b>

### FABRIC

VXS+
<b>INHERENT</b>

7482

## LADIES COVERALL

**SIZES:**  
8 - 22, Reg leg (29"/175cm)  
8 - 22, Tall leg (31"/180cm)



Cut in a  
specific  
women's fit

### PRODUCT INFORMATION

**COLOUR:** HV Yellow  
**FABRIC SPECIFICATION:**  
VXS+ HVY250W 250g/m² Woven  
Inherent Hi-Visibility Fabric  
**LOI:** 30.6%  
**PRODUCT CARE:**



No seams on shoulders  
to improve durability  
and comfort whilst  
wearing harness

9720



**NEW**

**SEAM  
GUARANTEE**

# LIGHTWEIGHT WATERPROOF JACKET

**SIZES:** S-4XL

- ✓ Elasticated inner cuffs // Wind proofing
- ✓ Storm flap // Wind proofing
- ✓ Taped seams // Waterproof / windproof
- ✓ Cuff tabs with VELCRO® Brand fasteners // Improved fit
- ✓ Fully adjustable, fold away hood with Velcro // Safety and comfort
- ✓ Removable Hood
- ✓ Radio loop attaching point on left breast
- ✓ Zipped Napoleon pocket on left breast with incorporated phone pocket // Safe and se-
- ✓ Inner pockets on right hand breast // Storage space
- ✓ Covered, zipped hand pockets // Keeps out debris and keeps contents secure
- ✓ No seams on shoulder // Improved durability and comfort whilst wearing a harness
- ✓ Mandarin collar // Maximum neck protection
- ✓ 50mm FR reflective tape // Increased durability
- ✓ 120gms lining // Lightweight
- ✓ Easy stretch side panels // Wear comfort
- ✓ Extended back // Protection when bending over
- ✓ SafetyICON™ // Visual EN standard
- ✓ ThermSAFE™ plastic FR zipper // CE Certified

### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018
A1, B1, C1, D1, E1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	CLASS 1, A1	CLASS 3	CLASS 3/3	Type PB (6) +A1:2009	ATPV= 20cal/cm²	CLASS 2

### BOX TEST

7KA
<b>CLASS 2</b>

### ARC RATING

25CAL
<b>ARC 2</b>

### FABRIC

VXS+
<b>INHERENT</b>



9820

# LIGHTWEIGHT WATERPROOF SALOPETTES

SIZES: S-4XL

Removable  
and adjustable  
braces

NEW

Expandable  
ankle opening  
with zipper

## PRODUCT INFORMATION

COLOUR: HV Yellow / Navy

### FABRIC SPECIFICATION:

**Outer Layer:** VXS+ Inherent Special  
Weave fabric with Waterproof  
Membrane - 250gms

**Lining Layer:** VXS+ Inherent Woven  
fabric -120gms

### PRODUCT CARE:



**SEAM  
GUARANTEE**

- ✓ 50mm FR reflective tape // Increased durability
- ✓ Combat pocket with phone pocket // Convenience and storage space
- ✓ 2 side pockets // Storage space
- ✓ Side access // For use as overtrousers
- ✓ 120gms lining // Lightweight
- ✓ Removable & adjustable suspenders
- ✓ Suspender back plate // Adjustable for comfort
- ✓ Safety/ICON™ on arm // Visual EN Certified
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ ProGARM® 9820 Waterproof Trousers
- ✓ Extra wide belt loop at rear // Prevents belt riding up

## EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018
A1, B1, C1 D1, E1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	CLASS 1, A1	CLASS 1	CLASS 3/3	Type PB (6) +A1: 2009	ATPV= 20cal/cm²	CLASS 2

## BOX TEST



## ARC RATING



## FABRIC



“ We have had these trousers for over 6 months and they are still going strong whereas before we had to replace trousers nearly every three weeks! ”





100%  
INHERENT

ProGARM®

# HI VIS ORANGE COLLECTION

For full Product Matrix outlining EN Standards, see page 98

✓ **INHERENT PROTECTION**

Flame Resistant properties last the lifetime of the fabric and do not wash out

✓ **GREAT COMFORT**

Breathable, soft to wear and fantastic to the touch

✓ **INSTANT EXTINGUISHING PROPERTIES**

Ultimate protection against Flame and Arc Flash hazards

✓ **HIGHLY DURABLE**

Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



## 5290 POLO SHIRT

Page 52



## 5648 SWEATSHIRT

Page 53



## 4608 JACKET

Page 54



## 4616 TROUSER

Page 55



## 9440 WATERPROOF JACKET

Page 56



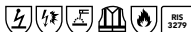
## 9660 WATERPROOF SALOPETTES

Page 57



## 4690 COVERALL

Page 58



## 9422 LIGHTWEIGHT WATERPROOF JACKET

Page 59



## 9622 LIGHTWEIGHT WATERPROOF SALOPETTES

Page 60





5290

POLO SHIRT

SIZES: S-4XL

IMPROVED

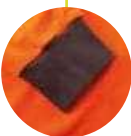
Ultra-soft and durable VXS+ Fabric



Safety ICON  
EN Standard  
identification



Contrast  
cuffing



SEAM  
GUARANTEE

- ✓ Enclosed stud placket // Allows quick fastening
- ✓ VXS+ blend // Natural feel, comfortable and soft
- ✓ Breathable with good moisture management
- ✓ ThermSAFE™ plastic FR poppers // CE Certified
- ✓ Knitted collar with tipping // Ensures best appearance after washing
- ✓ Contrast colour collar // Stylish and practical
- ✓ Rib knit cuffs // Close fit
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ 5cm FR AS Reflective tape // Heat applied to improve flexibility

5292

LADIES POLO SHIRT

SIZES: 8-22

NEW



PRODUCT INFORMATION

COLOUR: HV Orange  
FABRIC SPECIFICATION:  
ProGARM® VXS+ Inherent Pique  
Fabric, HV Orange - 220gms  
PRODUCT CARE:  
40°C / 104°F / 30% / 30% / 30%

EN STANDARDS\*

--	--	--	--	--

BOX TEST



ARC RATING



FABRIC



\*5292 meets Class 2 and 5290 meets Class 3

5648

SWEATSHIRT

SIZES: S-4XL

Twin needle  
stitch on  
neckline



Useful arm  
pocket for  
phone or  
small items



Fleece lined for  
extra warmth



PRODUCT INFORMATION

COLOUR: HV Orange  
FABRIC SPECIFICATION:  
ProGARM® VXS+ Inherent  
Sweat Fabric, HV Orange -  
430gms  
LOI: 30.2%  
PRODUCT CARE:  
40°C / 104°F / 30% / 30% / 30%

SEAM  
GUARANTEE

- ✓ Brushed fleece inner // Winter warmth
- ✓ VXS+ blend // Natural feel, comfortable and soft
- ✓ Breathable with good moisture management
- ✓ Round neck collar with stretch rib // Smart appearance
- ✓ Contrast colour collar // Stylish and practical
- ✓ Rib knit cuffs // Close fit
- ✓ 5cm stretch rib hem // Best fit around the waist
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ Arm pocket // Useful pocket for phone or small items
- ✓ 5cm FR AS Reflective tape // Heat applied to improve flexibility

EN STANDARDS

--	--	--	--

BOX TEST



ARC RATING



FABRIC





4608

# JACKET

SIZES: S-4XL

- ✓ Mandarin collar for maximum neck protection
- ✓ Vertical chest pocket with zipper // Discreet design
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Standard icon system
- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Phone pocket on sleeve with flap // Safe and secure

- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves
- ✓ Side access pockets with flaps // Prevents entry of debris
- ✓ ThermSAFE™ plastic FR zipper // CE Certified
- ✓ Extended back // Protection when bending over
- ✓ Double stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch side panels // Maximum wear comfort

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN ISO 20471: 2013	Compliant
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	ATPV = 8cal/cm² APC 1	Class 1, A1	Class 3	Issue 1

BOX TEST



ARC RATING



FABRIC



IMPROVED

PRODUCT INFORMATION

COLOUR: HV Orange  
FABRIC SPECIFICATION:  
ProGARM VXS+ Inherent  
Woven Fabric, HV Orange -  
290gms  
PRODUCT CARE:

SEAM  
GUARANTEE



4616

# TROUSER

SIZES: 30 - 54 Regular leg (32"/81cm)  
30 - 44 Tall leg (34"/86cm)  
32 - 42 Short leg (30"/76cm)

IMPROVED



SEAM  
GUARANTEE

- ✓ Combat pocket with flap // Safe storage space
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Mobile phone pocket // Keeps your phone safe
- ✓ Side access pockets with flaps // Protects from debris entry
- ✓ Extra wide belt loop at rear // Prevents belt riding up
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ SafetyICON™ on leg pocket // Visual EN Standard icon system
- ✓ Rear pockets with flap // Secure storage space
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Reinforced crotch // Improved longevity
- ✓ ThermSAFE™ Jeans button // Jeans style fastening
- ✓ 5cm FR AS Reflective tape // Double stitched for longer life

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018	EN ISO 11611: 2015	EN ISO 20471: 2013	Compliant
A1, B1, C1, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	ATPV = 8cal/cm² APC 1	Class 1, A1	Class 1	Issue 1

BOX TEST



ARC RATING



FABRIC



4614

# LADIES TROUSER

SIZES:  
8 -22 Regular leg (30"/76cm)  
8 -22 Tall leg (32"/81cm)



PRODUCT INFORMATION

COLOUR: HV Orange  
FABRIC SPECIFICATION:  
ProGARM VXS+ Inherent Woven  
Fabric, HV Orange - 290gms  
PRODUCT CARE:





### 9441 HELMET HOOD

Replaces standard hood with larger one to cover our range of Helmets.  
Sold separately

**SEAM  
GUARANTEE**



No seams on shoulders to improve durability and comfort whilst wearing harness

#### PRODUCT INFORMATION

COLOUR: HV Orange

#### FABRIC SPECIFICATION:

Outer Layer: VXS+ Inherent Special Weave Fabric with Waterproof Membrane - 395gms

Lining Layer: VXS+ Inherent Woven Fabric - 200gms

LOI: 27.0%

#### PRODUCT CARE:



9440

# WATERPROOF JACKET

SIZES: S-4XL

- ✓ Elasticated inner cuffs // Wind proofing
- ✓ Storm flap // Wind proofing
- ✓ Taped seams // Waterproof // Windproof
- ✓ Velcro® fastening tabs on cuffs and back // Improved fit
- ✓ Fully adjustable, fold away hood with Velcro® // Safety and comfort
- ✓ Radio loop attaching point on left breast
- ✓ Zipped Napoleon pocket on left breast with incorporated phone pocket // Safe and secure
- ✓ Inner pockets on right hand breast // Storage space
- ✓ Covered, zipped hand pockets // Keeps out debris and keeps contents secure

- ✓ No seams on shoulder // Improved durability and comfort whilst wearing a harness
- ✓ Mandarin collar // Maximum neck protection
- ✓ 50mm double stitched reflective tape // Increased durability
- ✓ Fully lined // Warmth and comfort
- ✓ Easy stretch side panels // Wearer comfort
- ✓ Extended back // Protection when bending over
- ✓ SafetyICON™ // Visual EN Standard
- ✓ ThermSAFE™ plastic FR zipper // CE Certified

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018	Compliant
A1, B1, C1, D2, E3, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 2, A1	Class 3		Type PB (6) +A1: 2009	ATPV= 47cal/cm²	Class 2	Issue 1

#### BOX TEST



#### ARC RATING



#### FABRIC



# WATERPROOF SALOPETTES

SIZES: S-4XL

Removable braces



Expandable ankle opening with zipper



#### PRODUCT INFORMATION

COLOUR: HV Orange

#### FABRIC SPECIFICATION:

Outer Layer: VXS+ Inherent Special Weave Fabric with Waterproof Membrane - 395gms

Lining Layer: VXS+ Inherent Woven Fabric - 200gms

LOI: 27.0%

#### PRODUCT CARE:



Salopettes are part of 2 garment set and should be worn with the compatible jacket 9440

**SEAM  
GUARANTEE**

- ✓ 70mm double stitched reflective tape // Increased durability
- ✓ Combat pocket with phone pocket // Convenient storage space
- ✓ 2 side pockets // Storage space
- ✓ Side access // For use as overtrousers
- ✓ Fully lined // Warmth and comfort

- ✓ Removable and adjustable suspenders
- ✓ Suspender back plate // Adjustable for comfort
- ✓ SafetyICON™ on arm // Visual EN Standard
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ Extra wide belt loop at rear // Prevents belt riding up

#### EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018	Compliant
A1, B1, C1, D2, E3, F1	Pt. 5:2008 Pt. 3:2004 Charge Decay	Class 2, A1	Class 2		Type PB (6) +A1: 2009	ATPV= 47cal/cm²	Class 2	Issue 1

#### BOX TEST



#### ARC RATING



#### FABRIC



4690

## COVERALL

**SIZES:**  
S-4XL, Regular leg (31"/80cm)  
M-2XL, Tall leg (33"/85cm)

Internal elasticated waistband for improved fit

Double stitched 5cm FR AS Reflective Tape

Wear with kneepads for extra protection

IMPROVED

SEAM GUARANTEE

4692

## LADIES COVERALL

**SIZES:**  
8-22, Regular leg (29"/75cm)  
8-22, Tall leg (31"/80cm)

NEW

Cut in a specific women's fit

### PRODUCT INFORMATION

**COLOUR:** HV Orange  
**FABRIC SPECIFICATION:**  
ProGARM® VXS+ Inherent Woven Fabric, HV Orange - 290gms

**PRODUCT CARE:**  
60/20/20/20/20/20

- ✓ Mandarin collar // Maximum neck protection
- ✓ Kneepad pockets // Wear with kneepads for extra protection
- ✓ Chest pockets with flaps // Secure storage
- ✓ Gas monitor loop // Secure fixing point
- ✓ SafetyICON™ on arm // Visual EN Standard
- ✓ 5cm FR AS Reflective Tape // Double stitched for longer life
- ✓ Phone pocket on sleeve with flap // Safe and secure
- ✓ Velcro® secured cuff tabs // Close fit around wrist or gloves
- ✓ Side access pockets // With entry inside coverall
- ✓ ThermSAFE™ plastic FR Zippers // CE Certified
- ✓ Internal elastic 2 point adjustable waistband // Ensures close fit
- ✓ Triple stitched side seams // Lifetime quality assurance
- ✓ Easy-Stretch™ side panels // Maximum wear comfort

### EN STANDARDS

A1, B1, C1, F1	Pl. 5:2008 Pl. 3:2004 Charge Decay	ATPV = 8cal/cm² APC1	Class 1, A1	Class 3	Issue 1

### BOX TEST

4KA
CLASS 1

### ARC RATING

8CAL
ARC 2

### FABRIC

VXS+
INHERENT

9422

No seams on shoulders to improve durability and comfort whilst wearing harness

NEW

SEAM GUARANTEE

# LIGHTWEIGHT WATERPROOF JACKET

**SIZES:** S-4XL

- ✓ Elasticated inner cuffs // Wind proofing
- ✓ Storm flap // Wind proofing
- ✓ Taped seams // Waterproof / windproof
- ✓ Cuff tabs with VELCRO® Brand fasteners // Improved fit
- ✓ Fully adjustable, fold away hood with Velcro // Safety and comfort
- ✓ Removable Hood
- ✓ Radio loop attaching point on left breast
- ✓ Zipped Napoleon pocket on left breast with incorporated phone pocket // Safe and se-
- ✓ Inner pockets on right hand breast // Storage space
- ✓ Covered, zipped hand pockets // Keeps out debris and keeps contents secure
- ✓ No seams on shoulder // Improved durability and comfort whilst wearing a harness
- ✓ Mandarin collar // Maximum neck protection
- ✓ 50mm FR reflective tape // Increased durability
- ✓ 120gms lining // Lightweight
- ✓ Easy stretch side panels // Wear comfort
- ✓ Extended back // Protection when bending over
- ✓ SafetyICON™ // Visual EN standard
- ✓ ThermSAFE™ plastic FR zipper // CE Certified

### EN STANDARDS

A1, B1, C1, F1	Pl. 5:2008 Pl. 3:2004 Charge Decay	CLASS 1, A1	CLASS 3	CLASS 3/3	Type PB (6) +A1:2009	ATPV = 20cal/cm²	CLASS 2	ISSUE 1

### BOX TEST

7KA
CLASS 2

### ARC RATING

25CAL
ARC 2

### FABRIC

VXS+
INHERENT



9622

# LIGHTWEIGHT WATERPROOF SALOPETTES

SIZES: S-4XL

Removable  
and adjustable  
braces

NEW

Expandable  
ankle opening  
with zipper

## PRODUCT INFORMATION

COLOUR: HV Yellow / Navy

### FABRIC SPECIFICATION:

**Outer Layer:** VXS+ Inherent Special Weave fabric with Waterproof Membrane - 250gms

**Lining Layer:** VXS+ Inherent Woven fabric - 120gms

### PRODUCT CARE:



**SEAM  
GUARANTEE**

- ✓ 50mm FR reflective tape // Increased durability
- ✓ Combat pocket with phone pocket // Convenience and storage space
- ✓ 2 side pockets // Storage space
- ✓ Side access // For use as overtrousers
- ✓ 120gms lining // Lightweight
- ✓ Removable & adjustable suspenders
- ✓ Suspender back plate // Adjustable for comfort
- ✓ Safety/ICON™ on arm // Visual EN Certified
- ✓ ThermSAFE™ plastic FR Zipper // CE Certified
- ✓ ProGARM® 9622 Waterproof Trousers
- ✓ Extra wide belt loop at rear // Prevents belt riding up

## EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	EN ISO 11611: 2015	EN ISO 20471: 2013	EN 343: 2003 +A1: 2007	EN 13034: 2005	IEC 61482-2: 2018	IEC 61482-2: 2018	Compliant
A1, B1, C1 D1, E1, F1	Pl. 5:2008 Pl. 3:2004 Charge Decay	CLASS 1, A1	CLASS 1	CLASS 3/3	Type PB (6) +A1: 2009	ATPV= 20cal/cm²	CLASS 2	ISSUE 1

## BOX TEST



## ARC RATING



## FABRIC



“Following trials, ProGARM® were the clear winner of the ARC Protection garments we needed. Having trialled nearly every supplier in the UK, ProGARM® were clear winners – shrinkage was minimal and the garment kept its shape – overall a fantastic product.”



ProGARM®

# BASELAYERS COLLECTION

For full Product Matrix outlining EN Standards, see page 98

✓ **INHERENT PROTECTION**

Flame Resistant properties last the lifetime of the fabric and do not wash out

✓ **GREAT COMFORT**

Breathable, soft to wear and fantastic to the touch

✓ **INSTANT EXTINGUISHING PROPERTIES**

Ultimate protection against Flame and Arc Flash hazards

✓ **HIGHLY DURABLE**

Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



**100%  
INHERENT**

100%



## 8210 TOP

Page 64



## 8220 LEGGINGS

Page 65



## 8100 BALACLAVA

Page 66



## 8300 SNOOD

Page 66



## 8400 HELMET LINER

Page 66



LADIES AVAILABLE  
8700F

## 8700 BOXER BRIEFS

Page 67



## 8770 BRA

Page 68



## 2101 COMPRESSION SOCKS

Page 68



## 2102 GENERAL BOOT SOCKS

Page 68







8210

# BASELAYER TOP

SIZES: S-4XL

- ✓ Garment layering benefits for extra protection
- ✓ Extra soft Flame Resistant fabric
- ✓ Contrast threads
- ✓ Elastic fabric to fit all shapes and sizes
- ✓ Thumb hole for extra hand protection
- ✓ Extended back
- ✓ L-shaped seams for wearer comfort
- ✓ Fully machine washable

**SEAM GUARANTEE**

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	EBT50= 4.9cal/cm²

BOX TEST



ARC RATING



FABRIC



PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION: VX S+ Inherent Jersey Fabric, Navy - 220gms  
PRODUCT CARE:



8220

# BASELAYER LEGGINGS

SIZES: S-4XL

- ✓ Extra soft fabric
- ✓ Contrast threads
- ✓ Fully machine washable

**SEAM GUARANTEE**

EN STANDARDS

EN ISO 11612: 2015	EN 1149-5: 2008	IEC 61482-2: 2018
A1, B1, C1	Pt. 5:2008 Pt. 3:2004 Charge Decay	EBT50= 4.9cal/cm²

BOX TEST



ARC RATING



FABRIC



PRODUCT INFORMATION

COLOUR: Navy  
FABRIC SPECIFICATION: VX S+ Inherent Jersey Fabric, Navy - 220gms  
PRODUCT CARE:



8100

## BALACLAVA

SIZES: One size



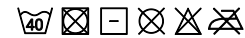
- ✓ Extra soft fabric
- ✓ Elastic fabric to fit all shapes and sizes

### PRODUCT INFORMATION

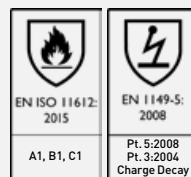
COLOUR: Navy

FABRIC SPECIFICATION:  
VXS+ Inherent Jersey Fabric, Navy - 220gms

PRODUCT CARE:



### EN STANDARDS



8300

## SNOOD

SIZES: One size

Elastic fabric  
to fit all shapes  
and sizes

Can be  
worn in  
multiple  
forms

Double stitching  
for longevity



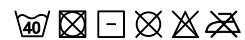
- ✓ Contrast threads
- ✓ Clear label with batch traceability
- ✓ Extra soft fabric

### PRODUCT INFORMATION

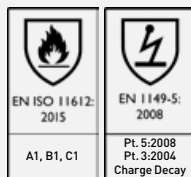
COLOUR: Navy

FABRIC SPECIFICATION:  
VXS+ Inherent Jersey Fabric,  
Navy - 220gms

PRODUCT CARE:



### EN STANDARDS



8400

## HELMET LINER

SIZES: One size



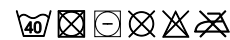
- ✓ Extra soft fabric
- ✓ Contrast threads
- ✓ Elastic fabric to fit all shapes and sizes

### PRODUCT INFORMATION

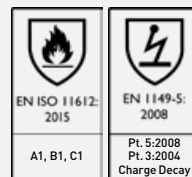
COLOUR: Navy

FABRIC SPECIFICATION:  
VXS+ Inherent Jersey Fabric,  
Navy - 220gms

PRODUCT CARE:



### EN STANDARDS



8700-M

## MENS BOXER BRIEFS

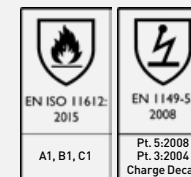
SIZES: (S/M), (L/XL), (2XL/3XL)



Colour matched to  
other navy ProGARM®  
garments

- ✓ Mesh stripes on side of garment for increased breathability
- ✓ Very light fabric for increased comfort
- ✓ Elasticated waist band
- ✓ Seamless sides for additional comfort

### EN STANDARDS



8700-F

## LADIES BOXER BRIEFS

SIZES: (S/M), (L/XL), (2XL/3XL)



### PRODUCT INFORMATION

COLOUR: Navy

FABRIC SPECIFICATION: ProGARM® VXS+  
Inherent Knitted Fabric, Navy -  
180gms

PRODUCT CARE:





8770

## FR BRA

SIZES: XS-2XL



NEW

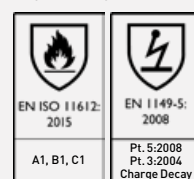
- ✓ Extra soft fabric
- ✓ Elastic fabric to fit all shapes and sizes

### PRODUCT INFORMATION

COLOUR: Black  
FABRIC SPECIFICATION: 330gms  
PRODUCT CARE:



### EN STANDARDS



2101

## COMPRESSION SOCKS

SIZES:

UK : 4-7  
EU: 38/41 S/M  
UK : 8-11  
EU: 40/46 L/XL

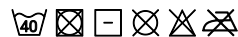


NEW

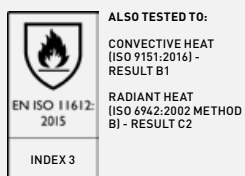
- ✓ Improves performance, as worn by top athletes
- ✓ Improved blood circulation, reduces tiredness in the legs

### PRODUCT INFORMATION

COLOUR: Navy  
PRODUCT CARE:



### EN STANDARDS



### IMPORTANT NOTE

Not to be worn by diabetics  
Not to be worn by anyone with a heart condition or anyone who has previously suffered a stroke.

2102

## GENERAL BOOT SOCKS

SIZES:

UK : 4-7  
EU: 38/41 S/M  
UK : 8-11  
EU: 40/46 L/XL

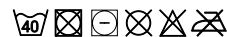


NEW

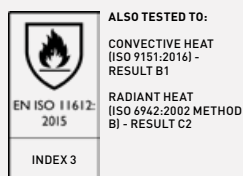
- ✓ Extra soft fabric
- ✓ Contrast threads
- ✓ Elastic fabric to fit all shapes and sizes

### PRODUCT INFORMATION

COLOUR: Navy  
PRODUCT CARE:



### EN STANDARDS



**Non-arc flash base layers can compromise the protection given by arc flash layers worn on top of them. Protect your team with our arc rated baselayers.**





ProGARM®

# HEAD PROTECTION PRODUCTS

For full Product Matrix outlining EN Standards, see page 98

✓ **INHERENT PROTECTION**

Flame Resistant properties last the lifetime of the fabric and do not wash out

✓ **GREAT COMFORT**

Breathable, soft to wear and fantastic to the touch

✓ **INSTANT EXTINGUISHING PROPERTIES**

Ultimate protection against Flame and Arc Flash hazards

✓ **HIGHLY DURABLE**

Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



**2660 SAFETY HELMET  
& 2668 REPLACEMENT VISOR**

Page 72



**2688 SAFETY  
HELMET 8.4 CAL  
& 2687 REPLACEMENT VISOR**

Page 73



**2690 SAFETY  
HELMET 24CAL  
& 2668 REPLACEMENT VISOR**

Page 74



**2676 EAR MUFFS**

Page 75



**2674 HEAD HARNESS**

Page 75



**2664 CHIN STRAP**

Page 75



**2671 PHOTON HEADLIGHT**

Page 76



**2662 FRONT SWEATBAND**

Page 76



**2666 BACK SWEATBAND**

Page 76



**2682 ZONE EAR  
DEFENDER ADAPTORS**

Page 77



**2677 STORAGE BAG**

Page 77



**2672 VISOR  
CLEANING CLOTH**

Page 77



**9700 ARC HOOD**

Page 78



2660

SAFETY HELMET CLASS 1

SIZES: One Size



2668

REPLACEMENT VISOR

SIZES: One size



HELMET

- ✓ Stroke absorption after conditioning in temperatures of (-30°) and (0°)
- ✓ Resistance to penetration after conditioning in temperatures of (-30°) and (+50°)
- ✓ Live working symbol (Two Triangles)
- ✓ Working Temperature Range (-30°) and (+50°)
- ✓ Wheel Ratchet adjustment
- ✓ Adjustable head circumference from 53-63cm
- ✓ Two level height adjustment feature
- ✓ Electrical insulation (Class 0) 1000V AC, 1500V DC
- ✓ Resistance to Molten Metal Splash (MM)
- ✓ Resistance to Lateral Deformations (LD)

VISOR

- ✓ Level of protection 1.2 (transparent face shield)
- ✓ Level of protection 1.7 (dimmed face shield)
- ✓ Protection against droplets and splashes of liquids (3)
- ✓ Optical powers, light transmission factor, luminance factor of dispersed light Optical class 1
- ✓ Resistance to medium energy impact (speed stroke up to 120m/s, mass of ball 0.86kg) (B)
- ✓ Protection against short circuit electric arc (8)
- ✓ Protection against thermal hazards of an electric arc, Class 1 (box test; 4kA/0.5s) VLT factor → 75% for class 0
- ✓ Protection against molten metal and hot solids (9)
- ✓ Resistance to surface damage by fine particles (K)

EN STANDARDS



PRODUCT INFORMATION

LIFETIME: 5 Years  
SIZES: One Size  
COLOUR: White (other colours available)

2688

SAFETY HELMET 8.4CAL

SIZES: One Size



2687

REPLACEMENT VISOR

SIZES: One size



NEW

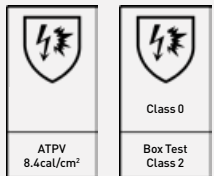
HELMET

- ✓ Shock absorption, tested after artificial ageing, wet conditioning and thermal conditioning in temperatures (-30°C) and (+50°C)
- ✓ Resistance to penetration, tested after artificial ageing, wet conditioning and thermal conditioning in temperatures (-30°C) and (+50°C)
- ✓ Resistance to flame
- ✓ Protection against lateral deformations - symbol LD
- ✓ Protection against molten metal splash - symbol MM
- ✓ Protection against electrical shock (Class 0)

VISOR

- ✓ Optical powers, light transmission factor, luminance factor of dispersed light - optical class 1
- ✓ Resistance to medium energy impact (speed of stroke up to 120 m/s, mass of the ball 0.86g) - symbol B
- ✓ Protection against droplets and splashes of liquids - symbol 3
- ✓ Level of protection 2-1.4 (yellow - green face shield)
- ✓ Face shield with enhanced colour recognition: red, yellow, green and blue according to p. 4.2.3 standard EN 172:2000 - symbol C
- ✓ Protection against short circuit electric arc - symbol 8
- ✓ Protection against thermal hazards of an electric arc - class 2 (box test)
- ✓ VLT factor 50% ≤ VLT 75% ← - Class 1
- ✓ Protection against molten metals and hot solids - symbol 9
- ✓ Protection against thermal hazards of an electric arc - ATPV = 8.4cal/cm²

EN STANDARDS



PRODUCT INFORMATION

LIFETIME: 4 Years  
SIZES: One Size  
COLOUR: White (other colours available)



**2690**

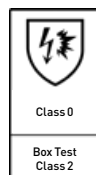
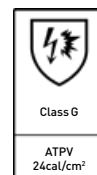
# SAFETY HELMET

## 24 CAL

SIZES: One Size

**HELMET**

- ✓ Shock absorption, tested after artificial ageing, wet conditioning and thermal conditioning in temperatures (-30°C) and (+50°C)
- ✓ Resistance to penetration, tested after artificial ageing, wet conditioning and thermal conditioning in temperatures (-30°C) and (+50°C)
- ✓ Resistance to flame
- ✓ Protection against molten metal splash - symbol MM

**EN STANDARDS****VISOR**

- ✓ Optical powers, light transmission factor, luminance factor of dispersed light - optical class 1
- ✓ Resistance to medium range energy impact (speed of stroke up to 120 m/s, mass of the ball 0.86g - symbol B)
- ✓ Protection against droplets and splashes of liquids - symbol 3
- ✓ Resistance to UV radiation - symbol 2
- ✓ Level of protection 2-1.7 (green face shield)
- ✓ Face shield with enhanced colour recognition: red, yellow, green and blue according to p. 4.2.3 EN 172:2000 - symbol C
- ✓ Protection against short circuit electric arc - symbol 8
- ✓ Protection against thermal hazards of an electric arc, ATPV=24Cal/cm² / HAF=91%
- ✓ VLT Factor VLT<50% for Class 2

**PRODUCT INFORMATION**

LIFETIME: 4 Years

SIZES: One Size

COLOUR: White (other colours available)

**2676**

## EAR MUFFS

SIZES: One Size

- ✓ Fit adjustable ear muffs for attachment to the ProGARM® helmet with soft PVC cushions
- ✓ SNR: 23dB. CE EN 352-3 Certified
- ✓ Suitable for all ProGARM® Arc Flash helmets

**2674**

## HEAD HARNESS

SIZES: One Size

- ✓ Complete replacement 4-point harness with textile webbing, front and rear sweatbands and ratchet mechanism for practical and easy one-hand size adjustment

**2664**

## CHIN STRAP

SIZES: One Size

- ✓ Replacement chin strap with quick release fasteners
- ✓ Adjust and 4-point fitting

**2671****NEW**

## PHOTON HEADLIGHT

SIZES: One Size

- ✓ Waterproof and shock resistant headlight with adjustable head

**2662**

## FRONT SWEATBAND

SIZES: One Size

- ✓ Replacement soft velour and foam sweatband for comfort and moisture absorption
- ✓ Velcro® fastening

**2666**

## BACK SWEATBAND

SIZES: One Size

- ✓ Replacement soft velour and foam sweatband for comfort and moisture absorption
- ✓ Velcro® fastening

**2682**

## ZONE EAR DEFENDER ADAPTORS

SIZES: One Size

- ✓ Adaptors to fit the popular zone ear defenders to the ARC Helmets

**2677**

## STORAGE BAG

SIZES: One Size

- ✓ Storage bag to transport and protect ProGARM® Helmet and other accessories

**2672**

## VISOR CLEANING CLOTH

SIZES: One Size

- ✓ Replacement soft cotton cloth to clean the visor
- ✓ For use with either of ProGARM® 2660, 2688 or 2690 Arc Flash helmets





NEW

Protection  
against  
electrical  
shock

Ultimate  
protection  
against Flame  
& ARC Flash  
Hazards

9700

# ARC4 HOOD

SIZES: One Size

## PRODUCT INFORMATION

SIZES: One Size

COLOUR: Navy

PRODUCT CARE:



## ASSEMBLY

The assembly of hood, visor and helmet has been tested to and certified to EN 166:2002, GS-ET-29:2011 (APC 2), and ASTM F2178-ATPV 47cal/cm²

## FABRIC

- ✓ VXS+ Inherent special weave 395gms outer shell fabric with VXS+ inherent
- ✓ 200gms lining woven fabric, meeting the following standards:
- ✓ EN ISO 11612:2015 - A1, B1, C1, D2, E3, F1
- ✓ EN ISO 11611:2015 - Class 2, A1
- ✓ EN 1149-5:2008
- ✓ IEC 61482-2 : Open Arc ATPV = 47cal/cm² - Category 4
- ✓ IEC 61482-2 : Box Test = Class 2

## VISOR

Premium anti-fog coated Highly Transparent Arc flash protective shield, colour grey, meeting the following standards:

- ✓ NFPA 70E, ASTM F2178 - 47cal/cm²
- ✓ ANSI Z87.1

## HELMET

Manufactured from high quality strong ABS material, up to 20% lighter than most other helmets, features Dry-Tech sweatband for maximum comfort, adjustable ratchet. Meeting the following standards:

- ✓ EN 397 - LD, MM, -40°C
- ✓ EN 50365
- ✓ ANSI/ISEA Class C



All our head protection is  
suitable for male and female  
wearers.





ProGARM®

# OTHER ACCESSORIES

✓ **INHERENT PROTECTION**

Flame Resistant properties last the lifetime of the fabric and do not wash out

✓ **GREAT COMFORT**

Breathable, soft to wear and fantastic to the touch

✓ **INSTANT EXTINGUISHING PROPERTIES**

Ultimate protection against Flame and Arc Flash hazards

✓ **HIGHLY DURABLE**

Colourfast with less than 3% washing shrinkage\*

\*Only on certain products



**2000 KIT BAG**

Page 82



**2678 ARC GLOVES**

Page 82



**2240 FR KNEEPADS**

Page 83



**7721 DETACHABLE  
HOLSTER POCKET**

Page 83



**2700 ARC GLOVES**

Page 84



**2400 FR BELT**

Page 84



**8050 FR BEANIE HAT**

Page 84



2000

## KITBAG

SIZES: One size

Large capacity



- ✓ Zipped front pockets
- ✓ Zipped main compartment pocket
- ✓ Internal baseboard for rigidity
- ✓ Protective base feet for longer bag life

Detachable adjustable shoulder strap

## PRODUCT INFORMATION

SIZES: 50cm x 25cm x 25cm (34 Litres)  
COLOUR: Black  
CODE: 2000

2678

- ✓ ARC Rated 50cm<sup>2</sup> // High ARC Resistant rating
- ✓ Cut resistant // Level 2 & 3\* according to ANSI/ISEA 105 Scale
- ✓ Flame Resistant // Exceeds industry standards according to ASTM D6413
- ✓ Durability // 5 x more durable than traditional driver gloves

## PRODUCT INFORMATION

SIZES: L, XL, 2XL  
COLOUR: Tan  
CODE: 2678

## EN STANDARDS



## ARC RATING



## ARC GLOVES

SIZES: L, XL, 2XL



Winterized, waterproof and windproof

18oz/yd<sup>2</sup> goatgrain leather

2240

## FR KNEEPADS

Notched sides for maximum flexibility



Excellent breathability due to air holes in the foam

- ✓ EN ISO 11612 Certified // Optimum safety
- ✓ High impact absorption from high grade cellular rubber
- ✓ Wash tested to ISO 15797, 12 cycles // Perfect stability

## PRODUCT INFORMATION

SIZES: Width: 145mm x Length: 235mm  
COLOUR: Black  
CODE: 2240

## EN STANDARDS



7721

## DETACHABLE HOLSTER POCKET

VXS+ Woven  
Inherent Fabric,  
300gms

NEW



## PRODUCT INFORMATION

SIZES: One size  
COLOUR: Navy  
CODE: 7721

100%  
INHERENT  
SEAM  
GUARANTEE

Detachable holster pocket does not meet any en standards on its own, must be worn with 7720 combat trousers.



2700

ARC GLOVES

SIZES: M (8), L (9), XL (10), XXL (11)



Suitable for high risk environments

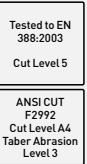
NEW

- ✓ Category 2 Arc rated
- ✓ Level 5 (EN388:2003 withdrawn) - Level D TDM (EN388:20016 current)
- ✓ Excellent dry and wet grip
- ✓ Good abrasion resistance
- ✓ Excellent oil, grease, glue and chemical resistance
- ✓ Dexterity, touch, elasticity and hand conformity similar to Natural Rubber

PRODUCT INFORMATION

SIZES: M (8), L (9), XL (10), XXL (11)  
COLOUR: Khaki

EN STANDARDS



ARC RATING



NEW



2400

FR BELT

SIZES: Waists 30"-38" (110cm)  
Waists 40"-48" (130cm)

NEW



8050

FR BEANIE HAT

SIZES: One Size



Provide total protection and optimum comfort by choosing tested, compliant and appropriate accessories.



# USEFUL INFORMATION

## MADE TO PERFORM... EVEN IN THE WASHING MACHINE

### TRIED AND TESTED

**It's essential to us that you have absolute confidence in your garments and know they'll continue to perform and keep your team safe, long after purchase.**

To achieve EN certification, we extensively wash-test all our VXS+ fabrics before releasing them to market, paying close attention to colour fastness, how tear and tensile strength is affected, pulling resistance and dimensional change or shrinkage.

And, because our VXS+ fabrics are 100% inherent, they are Arc Flash and Flame Resistant for the life of the garment; protection doesn't wash out like it will with treated garments. In fact, we regularly test other garments and fabrics on the market to ensure our products remain at the forefront of Arc Flash protection.



### DON'T JUST TAKE OUR WORD FOR IT

Our garments have undergone wash trials at several commercial laundry companies on behalf of customers, so that they can see how our garments perform. In every case, our garments have passed those rigorous tests with flying colours.

Many of our fabrics have been certified to EN11612 after 50 industrial wash cycles, as specified in ISO 15797:2004. This involves being washed at 75°C and tunnel dried at 150°C for five minutes.

Many aramid fabrics are sensitive to high pH values in detergents and are more susceptible to colour change during industrial laundry.

However, our VXS+ fabric dye processes mean they're easier to wash and dry at home or through industrial laundry, extending the lifespan of the garment with low shrinkage and maintained hi-vis and brand standards.

INDUSTRIAL WASHING PROCEDURE ACCORDING TO ISO 15797		VXS+ 300W 300G/M2	ARAMID FABRIC
WASHING (75°C) AND TUMBLE DRYING (80°C)		COLOUR FASTNESS AFTER INDUSTRIAL WASHING (ISO 105 A02)	
INITIAL		5	5
25X		4-5	1-2
50X		3-4	1

Colour performance is measured on a level of 1 to 5 (with 5 being the maximum).  
Note: Garments should be washed according to the care label.

As part of our commitment to quality, ongoing performance and customer confidence, we rigorously test reflective tapes and components (such as zips and press studs) too.

If you intend to commercially wash your ProGARM® garments, we're happy to talk with your laundry partner so that we're all confident in the processes they're using and that your team remains protected.

### EN STANDARDS AROUND GARMENT WASHING METHODS

#### EN ISO 6330: 2012 DOMESTIC

TEXTILES – DOMESTIC WASHING AND DRYING  
PROCEDURES FOR TEXTILE TESTING

This international standard defines the washing and drying procedures for textiles being washed at home with consideration for wash loads, drying procedures, chemicals and detergents and many other variables. The standard was reviewed in 2012, after 10 years of amendments with industry influencers, to ensure the standard was based on global practices.

All our garments meet or exceed this standard, with many fabrics and accessories in our collection also tested to the Industrial Wash standard EN ISO15797 – see below.

#### EN ISO15797: 2004 INDUSTRIAL

TEXTILES – INDUSTRIAL WASHING AND FINISHING  
PROCEDURES FOR TESTING OF WORKWEAR

This international standard defines the suitability of textiles for industrial washing, factoring in industrial washing machinery, larger wash loads, more demanding wash detergents, eight washing procedures (with hotter and tougher temperatures) and for two drying procedures including tunnel drying with temperatures up to 150°C. Some fabrics and accessories within the our range meet this standard for industrial washing in accordance with the correct procedures. For more information, please ask your ProGARM® representative.



# IMPORTANT CHANGES REPLACE THE PPE DIRECTIVE WITH AN EU REGULATION

Past issues of our catalogue provide information relating to Personal Protective Equipment (PPE) and the European Directive that regulates it, 89/686/EU.

On 21 April 2016, the PPE Directive was converted to a regulation (completely effective from 21 April 2018) with increased scope for the type of products and processes covered. It also now applies to the whole supply chain and not just the product manufacturer.

This places stronger obligations on manufacturers to regulate and audit their supply chain, which is something we at ProGARM® had already been doing for years.

The definition of PPE has also been expanded to be "Equipment designed and manufactured to be worn or held by a person for protection against one or more risks to that person's health or safety."

Certificates for existing PPE items remain valid until 21 April 2023, but all new PPE items need to be certified under the new regulation from 21 April 2018. Category 3 PPE items need to be recertified before 21 April 2023.



## ALWAYS READ THE LABEL

# CE

### THE CE MARK

Category 2 and 3 PPE should always bear the CE mark, followed by a four-digit number. This shows the garment is Type Approved by a notified body and complies with the requirements of either the PPE Directive (while still valid), or the new PPE Regulation (EU) 2016/425.

All our products comply with the requirements of the PPE Directive or with the new PPE Regulation as applicable.

### CE CERTIFIED GARMENTS COMPARED WITH 'CE CERTIFIED FABRICS'

When purchasing any Arc Flash or other protective clothing, always check that the finished garment has been tested.

Any garment correctly certified and CE marked should also display the relevant visual symbol for the standard with which it complies, such as the Arc Flash EN Standard symbol.

Where the fabric has been tested, but not the finished garment, the relevant EN Standard symbols will be missing from the garment label and replaced with text detailing the standard to which only the fabric has been tested.

All our garments are fully certified to the standards displayed on them. (An example care label is shown below.)

**Style Number** → 9750

**CE Marking** → CE 0338

**EN Standards to which the garment meets** → EN ISO 11611:2015, EN ISO 11612:2015, EN 1149-5:2008, IEC 61482-2:2009, EN ISO 20471:2013, EN 343:2003 +A1:2007, EN 17034:2005 +A1:2009

**Wash Care Instructions** → Aftercare: • Do not bleach, do not boil, do not use soap based products - only detergents. • Company will not accept liability for garments where care labels have been ignored, neglected, defaced or removed. • Always store in clean, dry conditions.

**Fabric Compositions** → Fabric Composition: Outer Layer: 50% Polyester / 27% VXS+ Modacrylic / 22% Cotton / 1% Antistatic - PU Laminated. Lining Layer: 55% VXS+ Modacrylic / 44% Cotton / 1% Antistatic. Cuff: 45% Cotton / 38% VXS+ Modacrylic / 10% Elastomer / 9% Viscose.

**Clear Washing Care Symbols** → Wash Instructions: 60°, No Bleach, No Iron, No Dry Clean, No Tumble Dry, No Steam, No Press, No Wash.

**Batch Number For Traceability** → S1\_6101/6104

**Garment Edition Number** → CL-Version 1 Edition 1 Made in EU

**Size** → SIZE M

**Dimensions** → 98-102, 174-178



# HOW PROGARM® PROTECTS YOUR TEAM AND EN STANDARDS

**Our protective clothing is designed specifically for working in environments where heat, flame, low light, open arc, chemicals or static electricity are all potential hazards.**

To ensure our garments protect in these environments, each item is certified and manufactured to a European Standard. These standards ensure that the design, materials used and performance after washing are maintained and reach minimum requirements.

## ALWAYS AHEAD OF THE GAME

When new - often more stringent - EN Standards are made available, we ensure our garments are certified to meet or exceed these requirements.

## WE'RE HERE TO HELP

Read on for information about the most relevant EN Standards that relate to the garments in our collection, together with some explanatory notes. We've done our best to ensure the information in this section is correct at the time of going to print - January 2020. For the exact wording and terminology of the standard, please refer to the relevant British Standards Institute (BSI) document available to purchase from the BSI or other sellers online.

To discuss the implications of these EN Standards for your business, or for an assessment of your current garments, please get in touch to speak to a specialist in your sector.



## RIS-3279-TOM

GO/RT 3279 was a high visibility standard that only applied to the rail industry in the UK, as opposed to the EU-wide nature of other EN Standards. It has now been officially replaced by a new Rail Industry Standard (RIS-3279-TOM) which reproduces the content of GO/RT 3279 in its entirety.

The aim of GO/RT 3279 and the new RIS-3279-TOM is to ensure that rail workers on or near the tracks are sufficiently visible to trains approaching at speed or any other traffic.

Stated in the standard is that: 'The colour specific requirements within this standard conform to the range specified within BS EN 20471 clause 5.1.2.'. In order to confine this to a specific orange colour and to prevent the selection of a colour at the red end of the spectrum, the precise chromaticity co-ordinates for the colour are specified as: Fluorescent orange, X:0.588, Y:0.371, with a luminance factor of at least 0.4. The accepted tolerance in colour is laid out in EN 20471. There is no tolerance for the luminance factor.

Also stipulated in the RIS 3279 standard is the need for retro-reflective materials, with photometric and physical performance aligned with EN 20471.

Mentioned in the RIS 3279 standard is the accepted use of a mini vest where the nature of the work being carried out will not obscure the high visibility clothing, and thus reduce the surface area that is visible. The same applies to company logos; these are permitted where they do not compromise the surface area of background colour, and compensation may have to be made for this.



## EN1149-5 PROTECTIVE CLOTHING WITH ELECTROSTATIC PROPERTIES

### ABOUT THIS EN STANDARD

This is the European Standard for garments that protect against electrostatic discharge in areas where there is a risk of explosion (ATEX Environments) such as in petrochemical refineries or when fuel is being delivered.

Annex II art 2.3 of the ATEX Directive 99/92/CE concerning the protection of workers likely to be exposed to the risk of explosive atmospheres says: "Workers must be provided with appropriate working clothing consisting of materials which do not give rise to electrical discharges that can ignite explosive atmospheres." As a consequence, the outer fabrics of these garments are made from antistatic materials and components.

Under the scope of the PPE Manufacturers Directive 89/686/EEC, a series of EN Standards have been developed relating to electrostatic properties. Key parts of these standards that relate to the protective garments we produce are noted here:

### EN1149-5 PERFORMANCE REQUIREMENTS

Antistatic PPE is certified to EN1149-5 as this standard covers the performance requirements of the garments and refers to the choice of two different methods (EN1149-1 or EN1149-3).

### EN1149-1 MEASUREMENTS OF SURFACE RESISTIVITY

This test method is most appropriate for materials for which the electrostatic dissipative behaviour is based on surface conductivity. That is materials containing surface conductive yarns or a homogeneous conductive outside PVC coating layer. This method is not appropriate for core conductive fibres.

### EN1149-3 MEASUREMENTS OF CHARGE DECAY

This test method is referenced as the most relevant for materials for which the electrostatic dissipative behaviour is based on core conducting fibres but can also be used for surface conducting materials.

In the EN1149 series there is also EN 1149-2 (measurement of electrical resistance through a material; the vertical resistance) which is also used as a test method in EN ISO 11611 (welders' clothing) and which is also mentioned in Annex H of EN469:2005. A further part of EN1149 is still under development which will cover the testing of the full garment - this part of the standard will be EN1149-4.





# IEC 61482-2

## PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC

We produce garments that protect workers against the thermal hazards of an electric arc. Each garment style is carefully designed to offer the maximum protection whilst ensuring comfort and outstanding durability. As Arc Flash garments come under the requirements of Category 3 Protective Clothing, these garments are manufactured under Article 11B Quality Control Procedures.

### WHAT IS AN ELECTRIC ARC?

Electric arc, and the Arc Flash created, is an extremely dangerous and perhaps the least understood electrical hazard. They occur as a result of extreme discharges of voltage or electrical current from equipment including switchgear, transformers and heavy electrical equipment. The arc generates a high level of energy for a very short span of time (up to 1 second). The intense heat can create temperatures of more than 19,000°C and it also produces electric shock, extraordinary force and large quantities of thermal radiant energy.

### WHAT IS THE RISK?

Anywhere your employees are working with electricity, an Arc Flash can occur. To ensure adequate protection, you must be able to determine the maximum energy of default circuits in any electrical installation. The risks of an electric arc exposure are significant and potentially fatal through:

- Electrocution
- Extremely high levels of radiant heat
- Secondary fire or explosions (ignition to the surroundings)
- 1st, 2nd or 3rd degree burns – 3rd degree burns cause permanent damage

### IEC 61482-2:2018 PERFORMANCE AND DESIGN REQUIREMENTS

The standard outlines the performance requirements for materials and design requirements for garments, as well as the external marking of garments and other user information that should be made available to wearers. All ProGARM Arc Flash protective garments carry prominent external markings to indicate that is the case.

The standard also specifies the requirements and test methods applicable to materials and garments for protective clothing worn by electrical workers to protect them against the thermal hazards of electric arc. There are two main ways to test a garment's ability to protect a worker from the dangers of an Arc Flash.

### IEC 61482-1-1:2019 'OPEN ARC' TEST METHOD

The 'Open Arc' test method (ATPV test and garment test) replaces IEC 61482-1:2002. The 'Open Arc' test method is the same as the original North American method for measuring the Arc Thermal Performance Value (ATPV), as used in ASTM F1959. Materials or assemblies are given an ELIM, ATPV or EBT value, expressed in kilojoules per square metre (kJ/M2), which can be converted into the familiar Cal/cm².

### IEC 61482-1-2:2007 'BOX ARC' TEST METHOD

The 'Box Arc' test method (Fabric classification and garment test) is based on the original European method described in ENV 50354, with a heat transfer measurement. Materials or assemblies are classified as Class 1 (4 kA) or Class 2 (7kA) (APC 1 or APC 2 if certified to IEC 61482-2:2018). During this test, a fabric sample is exposed to an electrical arc produced by a 4kA or 7kA short circuit. In the test, the arc does not last any longer than 500ms. The amount of heat transmitted through the sample is measured during and after the test. On the basis of the resulting data and a Stoll curve, the length of time it would take to cause the onset of 2nd degree burns is determined. Samples are also assessed for after-flaming, hole formation, melting.

### GARMENT TESTING AND FABRIC TESTING

It is important to note that not only should the fabric be tested to make sure it conforms to the Standard, but also the complete garment or garment assembly. The garment test is not testing for energetic value but to ensure the garment structure remains intact after the arc exposure and that components such as zips, press studs and buttons are still functional and don't cause further injury to the wearer by melting or heat transfer.

### LIMITATIONS OF USE

With arc protection, the environmental conditions and the risks at the working site need to be considered. For example, a test under the standard using a 4kA test current (Class 1) subjects the garment/fabric to an incident energy of 135kJ/m² +/-56 KJ/m² (3.2 +/-1.2 Cal/cm²) over a 500ms exposure at 18-28°C and at 45-75% relative humidity (RH). If the working environment deviates from this temperature/humidity range, the level of protection may be reduced. Exposure to higher incident energies or longer duration arcs may also result in the garment providing insufficient protection. Therefore it's essential to conduct comprehensive risk assessments before live working.

For full body protection, the protective clothing needs to be worn fully fastened and closed and other suitable protective equipment (e.g. helmet with protective face screen, protective gloves and boots) should be used. No garments, such as shirts, undergarments or underwear, should be used which melt under arc exposures – e.g. those made of polyamide, polyester or acrylic fibres. For maximum protection against Arc Flash exposure, multiple flame-resistant garments should be worn in layers.

### REPAIR INSTRUCTIONS

WARNING: tears to Arc Flash certified garments should not be repaired by the user. A flammable (not flame proof) thread or non-heat-proof element likely to melt would be extremely dangerous in the event of exposure to flame. Should there be any need to repair a garment, please contact us for guidance and safety advice.



# EN ISO 11611

## PROTECTIVE CLOTHING FOR WELDING AND ALLIED PROCESSES

All of our safety garments are certified in accordance with this EN Standard and are designed to protect workers in welding processes. Parts of this EN Standard are also used in conjunction with the Arc Flash Standard for which ProGARM® has an enviable reputation for high performance garments.

### ABOUT THIS EN STANDARD

Within this EN Standard is a series of tests - the most important of which are described in ISO 6942, ISO 9150, ISO 15025 and EN 1149-2.

ISO 11611 has two classes - if the fabric passes all the tests, it is designated as Class 1. If the fabric also receives a Class 2 rating for the ISO 6942 and ISO 9150 tests, it is designated as Class 2.

**CLASS 1** - Lower Hazard Welding Applications.  
**CLASS 2** - Higher Hazard Welding Applications.

### EXPLAINING THE DIFFERENT TESTS

**ISO 6942:** This is a test method for assessing fabrics and fabric combinations exposed to radiant heat. In this test, a fabric sample is exposed to radiant heat (infrared rays). The temperature on the reverse (unexposed) side of the sample is registered using a calorimeter. The length of time the sample can remain exposed before the temperature on the unexposed side rises by 24°C is measured. This test is also used for EN 531C and has two different classes as follows:

**CLASS 1** - Temperature increase occurs after more than 7 seconds.  
**CLASS 2** - Temperature increase occurs after more than 16 seconds.

ISO 9150: Determines the behaviour of fabrics when exposed to small spatters of molten metal. In this test, droplets of molten metal are spattered on a vertically suspended fabric sample. The number of droplets it takes to cause an increase in temperature of 40°C on the reverse side of the sample is determined. This test also has two classes as follows:

**CLASS 1** more than 15 droplets of molten metal.  
**CLASS 2** more than 25 droplets of molten metal.

**ISO 15025:** This is the test method for limited flame spread. This test involves applying a flame to a fabric sample for 10 seconds. To pass the test, the after flame and smoulder times, together with the formation of holes, must be within the tolerances set in the standard. This test is also used for EN 531A.

The application of a flame can take place in two ways: in procedure A (leads to Class A1), the flame is applied horizontally (similarly to EN 470 and EN 531) in procedure B (leads to Class A2), the flame is applied laterally.

**EN 1149-2:** This is a test method for measuring the electrical resistance of a fabric sample and determining whether an electrical charge passes through the sample from the outside to the inside. For further information on this EN Standard please refer to the EN1149 section earlier in this section.

### TYPICAL EXAMPLES OF PROCESSES AND WHICH CLASS OF GARMENT MIGHT BE MOST RELEVANT

#### CRITERIA FOR CHOICE BASED ON THE TYPE OF PROCESS

##### CLASS 1

Manual welding operations during which small amounts of spatter or droplets of molten metal are formed such as:

- Gas welding
- TIG welding
- MIG welding
- Micro plasma welding
- Soldering brass
- Spot welding
- Shielded electrode MMA welding

##### CLASS 2

Manual welding operations during which large amounts of spatter or droplets of molten metal are formed such as:

- MMA welding (using alkaline or cellulose electrodes)
- MAG welding (with CO2 or mixed gasses)
- MIG (high-voltage) welding
- Flux-cored arc welding
- Plasma cutting
- Gouging
- Oxygen cutting
- Thermal spraying

#### CRITERIA FOR CHOICE BASED ON THE TYPE OF WORK

##### CLASS 1

Operating machines such as:

- Oxygen cutting machines
- Plasma cutting machines
- Resistance pressure welding machines
- Thermal spraying
- Welding tables

##### CLASS 2

Operating machines such as:

- In enclosed spaces
- When welding/cutting operations require reaching above head height or take place in comparable difficult positions





# EN ISO 20471

## HIGH VISIBILITY CLOTHING

This international standard specifies the requirements for clothing designed to emphasise the wearer’s presence visibly in order to make the wearer more noticeable in hazardous situations during the day and at night (illumination in car headlights). It has replaced EN 471 which has now been withdrawn.

### THE CONTENTS OF THIS EN STANDARD

This standard’s icon is a safety vest placed adjacent to a number which represents the design classification of the garment. The classification is 1, 2 or 3 where Class 1 provides the minimal level of visibility and class 3 provides the highest level prescribed by the standard.

### THE CLASSIFICATION

The classification is derived from the number of square metres of fluorescent fabric and the number of square metres of reflective strip incorporated in a garment.

	CLASS 1	CLASS 2	CLASS 3
FLUORESCENT MATERIAL	0,14	0,50	0,80
REFLECTIVE MATERIAL	0,10	0,13	0,20
COMBINED MATERIAL	0,20		

EN ISO 20471 provides the following guidance on risk factors and selection of clothing:

RISK LEVEL	FACTORS RELATED TO THE RISK LEVEL		RISK LEVEL
	VEHICLE SPEED	TYPE OF ROAD USER	
HIGH RISK ISO 20471 CLASS 3	> 60 km/hr	PASSIVE	High Visibility Day & Night Visibility 3600 (visible from all sides) Design for form recognition Encircling the torso Quantity and Quality for day & night
HIGH RISK ISO 20471 CLASS 2	<= 60 km/hr	PASSIVE	
HIGH RISK ISO 20471 CLASS 1	<= 30 km/hr	PASSIVE	

The fluorescent fabric must encircle the torso, sleeves and trouser legs with at least 40%, or the minimum required area, of fluorescent material present on the front of the garment (and on the back of the garment). The reflective strips must be 50mm wide and the space between 2 reflective strips must be at least 50mm. The distance from ‘the end’ of the garment (e.g. the end of a trouser leg) to the reflective strip must also be at least 50mm. Reflective strips can be positioned in a variety of different ways; Class 3 garments must cover the wearer’s torso and have either reflective strips about the sleeves or full length trouser legs.



# EN ISO 14116

## PROTECTION AGAINST HEAT & FLAME, LIMITED FLAME SPREAD

This standard replaces the withdrawn EN533. While the standard does deal with the issue of flame resistance to some extent, it is arguably more suited to outerwear that would usually be worn over other protective garments. For this reason ProGARM® has opted to meet EN11612 which offers a higher standard of protection.

Clothing manufactured to this standard is made from Flame Retardant materials so that if the material comes into contact with a flame, it will only continue to burn for a limited amount of time. After removal from the flame, the material will stop burning. Clothing in this category should not be worn to protect against convective heat, radiant heat, molten metal or similar higher risk hazards.

### THE CONTENTS OF THIS STANDARD

For fabrics, this standard only has a flame spread test and the test results are given as index values as detailed below. The number of wash cycles and the washing method used to achieve the stated index value are also given under the EN Standard pictogram. E.g. “25H” indicates 25 domestic wash cycles (this can also be indicated as “I” for industrial wash cycles or “C” for chemical cleaning such as Dry Cleaning). The “60” represents the laboratory washing temperature in degrees Celsius. There are also requirements in this standard for the seam strength to be tested and for tests to ensure the Flame Retardant properties of the garment’s seams meet the requirements.

### DIFFERENT TESTS, CODES

**Index 1:** No flaming to the top or side edge, no flaming debris and no afterglow shall spread from the carbonised area to the undamaged area. Hole formation is possible under this index. These fabrics should not be worn next to the skin. An example of a fabric in this category would be an FR polyester which will meet the requirements but will always form a hole.

**Index 2:** No flaming to the top or side edge, no flaming debris and no afterglow shall spread from the carbonised area to the undamaged area. No hole formation possible with this index. The requirements are the same as index 3 but no maximum afterflame time is specified.

**Index 3:** Requirements are the same as index 2, but the afterflame time of each individual specimen should not exceed 2 seconds.



# EN ISO 11612

## CLOTHING TO PROTECT AGAINST HEAT & FLAME

ProGARM® produces garments to protect wearers against heat & flame in accordance with this European Standard. This standard replaces the withdrawn EN531 standard and shows our continuous commitment to offer garments certified to the latest specifications.

### ABOUT THIS EN STANDARD

The requirements apply to clothing intended for a wide range of applications which offer limited flame spread and provide protection against various hazards including radiant heat, convective heat and splatters of molten metal. The pictogram is the same as the withdrawn EN531 standard. There are several fabric tests within this EN Standard and the results of the tests are represented by the pre-fix letters A, B, C, D, E and F. A number after these letters indicates the performance of the fabric within this test. If a (0) is shown, then the fabric has not been tested or does not achieve the lowest value attainable with the test.

### FABRIC REQUIREMENTS

General Requirement: The mechanical strength and heat resistance at a temperature of 180°C: the material shall not ignite or melt and shall not shrink by more than 5%.

### EXPLAINING THE DIFFERENT TESTS AND CODES

#### LETTER A (EN 15025)

This test consists of applying a flame to a fabric sample for 10 seconds. To pass the test, the afterflame and smoulder times and formation of holes must be within the tolerances within the standard. The application of a flame can take place in two ways:

#### CODE LETTER A1 SURFACE IGNITION, ISO15025 A

**Procedure A** (leads to Class A1), the flame is applied horizontally (similarly to EN470 and EN531).

- No specimen shall permit any part of the lowest boundary of any flame to reach the upper or either vertical edges
- No specimen shall give hole formation of 5mm or greater in any direction, except for an inter-lining that is used for specific protection other than heat and flame protection
- No specimen shall give flaming or molten debris
- The mean value of afterflame time shall be < 2s
- The mean value of afterglow time shall be < 2s

#### CODE LETTER A1 EDGE IGNITION, ISO15025 B

**Procedure B** (leads to Class A2), the flame is applied laterally.

- No specimen shall permit any part of the lowest boundary of any flame to reach the upper or either vertical edges
- No specimen shall give flaming or molten debris
- The mean value of afterflame time shall be < 2s
- The mean value of afterglow time shall be < 2s

#### LETTER B (ISO 9151)

Convective Heat: determination of the heat transmission when exposed to flames. The sample is held above the flame and the rise in temperature on the topside of the sample is measured with a calorimeter. The length of time the sample can remain exposed before its temperature rises by 24 °C is determined.

B1: 4 < 10 seconds, B2: 10 < 20 seconds, B3: 21 seconds and longer.

#### LETTER C (ISO 6942)

Exposure to radiant heat: In this test, a fabric sample is exposed to radiant heat (infrared rays). The temperature on the reverse (unexposed) side of the sample is registered using a calorimeter. Subsequently, the length of time the sample can remain exposed before its temperature rises by 24°C is measured. The test procedure is the same as ISO 11611, but the classification is different:

C1: 7 < 20 seconds, C2: 20 < 50 seconds, C3: 50 < 95 seconds, C4: 95 seconds and longer.

#### LETTER D AND E (ISO 9185)

D = Aluminium | E = Molten Iron.

Determining the level of protection against spatters of molten metal. A membrane (with similar properties to human skin) is attached to the reverse of the fabric sample sequentially rising quantities of molten metal (aluminium or iron as applicable) are splashed on the sample. The quantity of molten metal which deforms the membrane is determined.

The classification for molten aluminium is:

D1: 100 < 200 grams, D2: 200 <350 grams, D3: 350 grams and more

The classification for molten iron is:

E1: 60 < 120 grams, E2: 120 < 200 grams, E3: 200 grams and more.

#### LETTER F (ISO 12127)

This is a new test to establish a value for contact heat.

The classification in this respect:

F1: 5 < 10 seconds, F2: 10 < 15 seconds, F3: 15 seconds and longer.





# EN 13034

## PROTECTIVE CLOTHING AGAINST LIQUID CHEMICALS

ProGARM® produces garments to protect wearers against liquid chemicals in accordance with this European Standard. These garments are suitable for use in environments where there may be a risk of chemical splashes but where a total chemical barrier is not required - \*PB = Partial Body Protection.

The EN 13034 standard specifies the requirements and test methods for Type 6 chemical protection suits for both one-off and multiple use applications. For other related accessories, such as gloves and boots, which are not an integral part of the suit, please refer to the corresponding product standards (see product matrix on page 86). Clothing in this category provides limited protection against small spatters or fumes of liquid chemicals. It is usually made of water-repellent, but not completely waterproof materials. Within the ProGARM® range of products this is often achieved by the use of chemical coatings such as Teflon®, which repel the contaminants and in order to preserve these properties within the fabric of the garment, special washing and drying instructions should be adhered to.

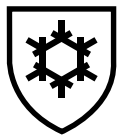
### ABOUT THIS EN STANDARD

The fabric is tested in various ways to determine its tensile strength and resistance to chemicals. In these tests, four different solutions of chemicals (Sulphuric Acid H<sub>2</sub>SO<sub>4</sub> 30%, Sodium Hydroxide NaHO 30%, 0-xylene undiluted and 1-butanol undiluted) are applied to a fabric sample and the quantities of liquid that drip off and penetrate the fabric are measured and analysed must be within the tolerances set within the standard.

One finished product (of each quality) must also be analysed in a 'mannequin' test. During this spray test, the wearer must perform 7 movements (these are described in the standard) and the permeability of the garment to liquid chemicals is subsequently determined. The classes attained in the various tests must be clearly listed in the user instructions for the garment.

Where certified to EN 13034 ProGARM® garments are Type 6 garments and must undergo the spray test in order to display the EN pictogram for the standard on the user information and garment Care Label. In some of our garments it should be noted that in some instances the fabric has been tested but the garment and seams have not. In this case, this is clearly marked on the Care Label and the EN pictogram is not shown. Other requirements within the EN 13034 standard include tests for water resistance, tear strength, tensile strength and seam strength. If 2 piece garments are to be worn such as a trouser and jacket combination it is important to ensure that both garments have been certified as a 'set' for the specified level of protection.

If chemicals are splashed onto a garment, the wearer should immediately move away from the affected area and carefully remove the garment, ensuring that the chemicals or liquids do not come into contact with any part of the skin. The garment must then be cleaned and assessed for future use or taken out of use.



# EN 342

## PROTECTION AGAINST COLD

This EN standard specifies the requirements and test methods for garments and clothing combinations designed to protect the wearer in a cold environment (characterised by a combination of humidity, wind and air temperature lower than -5 °C). The standard does not contain any specific requirements for head, hand or foot protection.

### ABOUT THIS EN STANDARD

This standard's pictogram is an ice-crystal placed alongside three figures that represent the insulation (Clo), air permeability (X) and, if applicable, the water vapour resistance (Y) values. The precise meaning of these values is explained below.

### THE CLO, X AND Y VALUES

The Clo value indicates a garment's insulation properties and is a measurement of how long a person can work at a specific temperature when wearing this clothing. It is not a specific class, but can be any value. The table below shows the significance of the Clo value.

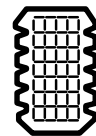
	LIGHT ACTIVITY 115 W/M²		AVERAGE ACTIVITY 170 W/M²	
CLO	8H/°C	1H/°C	8H/°C	1H/°C
2.0	1	-23	-18	-31
2.5	-6	-33	-29	-44
3.0	-13	-43	-39	-57

The X value indicates a garment's air permeability. The X value has 3 classes (1 to 3). Class 1 garments have the highest air permeability and Class 3 the least. The air permeability is a wind proofing measurement, Class 1 is therefore the least windproof and Class 3 the most.

The Y value indicates a garment's water vapour resistance. The Y value also has 3 classes (1 to 3). Class 1 garments have the lowest water vapour resistance and Class 3 garments the highest.

A more recent version (2004) of EN 342 is now available.

The new version has the following values: Icler / Icle, this is the equivalent of the Clo value and two Y values. The first Y value indicates the air permeability; it is assessed in a different way to the old EN 342, but is still given as Class 1 to 3. The second Y value indicates the garment's waterproofing. Clothing that complies with EN 342 does not necessarily have to be waterproof. This value can therefore sometimes be omitted. This value has 2 classes - 1 and 2. Class 1 is the least waterproof and Class 2 the most. If a garment is waterproof, its breathability must also be tested.



# EN 14404

## KNEE PROTECTION

Personal protective equipment. Knee protectors for work in the kneeling position.

ProGARM® produces safety garments that are certified in accordance with the EN 14404 Type 2 standard. This EN Standard relates to trousers and coveralls which offer kneepad pockets to protect the wearer when kneeling.

### ABOUT THIS EN STANDARD

EN 14404 only applies in combination with certified kneepads and a garment that has been assessed. All ProGARM® workwear garments with knee pockets comply with EN 14404 and have been assessed accordingly by a notified body.

The measurements prescribed for kneepads depend on the size of the garment in which they are used. The ProGARM® Gel Foam kneepads is our recommended kneepad for use in our garments to ensure the pad fits the pocket and offers protection for wearers from short to long leg lengths.

There are three properties of knee protectors that are tested - these are Penetration Resistance, Force Distribution and Shock Absorption. Two levels of protection can be provided. The ProGARM® Gel Foam Kneepad has been tested according to and meets the requirements for EN14404 Level 1.

**Level 1:** This level requires kneepads to provide protection on a surface on which the wearer will not generally risk injury from lying objects more than 1cm high. Penetration resistance of at least 100 N.

**Level 2:** This level requires kneepads to be able to withstand use under heavy conditions, such as kneeling on stones in mines and quarries. Penetration resistance of at least 250 N.



# EN 343

## PROTECTIVE AGAINST RAIN

This EN Standard specifies the requirements and test methods for materials and the seams of protective clothing that has been designed to give protection against precipitation (i.e. rain, snow), mist and ground moisture. There is also a separate test EN 14360 for assessing the waterproofness of the complete finished garments but this test is not included in EN 343.

### ABOUT THIS EN STANDARD

This standard's icon shows an umbrella placed under two numbers that represent the X and Y values. The X value indicates the waterproofness and the Y value indicates the water vapour permeability (the garment's breathability).

This standard falls within the scope of 'self-certification'. This means that manufacturers are allowed to certify their own products, which therefore do not need to be assessed by an independent notified body. This is because the only risk to the wearer is that he/she might get wet, which is not a life-threatening hazard. If EN 343 is used in combination with other EN Standards the whole combination of standards is assessed by the notified body



















### THE X AND Y VALUES

The X value indicates the waterproofness of the garment. There are 3 Classes with 3 being the highest (i.e. the most waterproof) and 1 is the lowest. A specific quantity of pressurised water is applied to the fabric and the respective Class is derived from the amount of pressure the fabric can withstand.

The Y value indicates the breathability of the fabric/s (all the layers used in the article). There are also 3 classes for breathability with Class 1 being the lowest and Class 3 the highest. Wearing Class 1 garments longer than x minutes is not recommended (the length of time the article may be worn (x) is given in the standard in a table).
































PRODUCT MATRIX

	SINGLE COLOUR COLLECTION											SINGLE COLOUR COLLECTION						TWO TONE COLOUR COLLECTION					
																							
	5200 PAGE 20	5202 PAGE 20	5280 PAGE 21	5282 PAGE 21	5430 PAGE 22	5630 PAGE 23	9931 PAGE 24	5850 PAGE 25	5790 PAGE 25	7638 PAGE 26		7636 PAGE 26	7720 PAGE 27	6100 PAGE 28	6101 PAGE 29	5808 PAGE 32		5816 PAGE 33	5814 PAGE 33	6458 PAGE 34	6444 PAGE 35	6446 PAGE 35	
	POLO SHIRT	LADIES' POLO SHIRT	POLO SHIRT	LADIES' POLO SHIRT	T-SHIRT	SWEATSHIRT	SOFTSHELL JACKET	JACKET	LINED FLEECE JACKET	TROUSER		LADIES' TROUSER	COMBAT TROUSER	COVERALL	LADIES' COVERALL	JACKET		TROUSER	LADIES' TROUSER	COVERALL	COVERALL	LADIES' COVERALL	
	NAVY	NAVY	NAVY	NAVY	NAVY	NAVY	NAVY	NAVY	NAVY	NAVY		NAVY	NAVY	NAVY OR ORANGE	NAVY OR ORANGE	NAVY/YELLOW		NAVY/YELLOW	NAVY/YELLOW	NAVY/YELLOW	NAVY/YELLOW	NAVY/YELLOW	
	260 GMS	260 GMS	210 GMS	210 GMS	210 GMS	320 GMS	340 GMS	240 GMS	310 GMS + 230 GMS						300 GMS	300 GMS	300 GMS	240 GMS	300 GMS	300 GMS			
	PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC <small>OPEN ARC TEST METHOD CAL RATING</small>																						
	14.2 CAL/CM²	14.2 CAL/CM²	7 CAL/CM²	7 CAL/CM²		14.4 CAL/CM²	28 CAL/CM²	9.5 CAL/CM²	32.3 CAL/CM²						9.5 CAL/CM²	9.5 CAL/CM²	12.8 CAL/CM²	9.5 CAL/CM²	9.5 CAL/CM²	12 CAL/CM²	12 CAL/CM²		
	PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC <small>BOX TEST METHOD, CLASS 1 OR 2</small>																						
	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 2	CLASS 1	CLASS 1						CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1		
	CLOTHING TO PROTECT AGAINST HEAT & FLAME <small>(LETTER 'A' LIMITED FLAME SPREAD, LETTER 'B' CONVECTIVE HEAT, LETTER 'C' RADIANT HEAT, LETTER 'D' MOLTEN ALUMINIUM SPLASH, LETTER 'E' MOLTEN IRON SPLASH, LETTER 'F' CONTACT HEAT)</small>																						
	A1, B1, C1, F1	A1, B1, C1, F1	A1, B1, C1	A1, B1, C1	A1, B1, C1	A1, B1, C1	A1, B1, C1, F1	A1, B1, C1	A1, B2, C2						A1, B1, C1	A1, B1, C1	A1, B1, C1, D1, E1, F1	A1, B1, C1, D1, E1, F1	A1, B1, C1, D1, E1, F1	A1, B1, C1, D1, E1, F1	A1, B1, C1, D1, E1, F1		
	PROTECTIVE CLOTHING WITH ELECTROSTATIC PROPERTIES																						
	✓	✓	✓	✓	✓	✓	✓	✓	✓						✓	✓	✓	✓	✓	✓	✓		
	PROTECTIVE CLOTHING FOR WELDING AND ALLIED PROCESSES <small>(CLASS 1 OR 2)</small>																						
								CLASS 1, A1					CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1		
	HIGH VISIBILITY CLOTHING <small>(CLASS 1, 2 OR 3)</small>																			CLASS 3	CLASS 3	CLASS 2	
	RAIL STANDARD HIGH VISIBILITY <small>RIS 3279</small>																						
	PROTECTION AGAINST RAIN																						
	PROTECTION AGAINST CHEMICAL LIQUIDS																						
															GARMENT	GARMENT	GARMENT		GARMENT	GARMENT			



PRODUCT MATRIX

		TWO TONE COLOUR COLLECTION		HI-VIS YELLOW COLLECTION							HI-VIS YELLOW COLLECTION					HI-VIS ORANGE COLLECTION					
																					
		6460 PAGE 36	4658 PAGE 37	5286 PAGE 40	5287 PAGE 40	5626 PAGE 41	9930 PAGE 42	7418 PAGE 43	7414 PAGE 43	9750 PAGE 44	9880 PAGE 45	7480 PAGE 46	7482 PAGE 46	9720 PAGE 47	9820 PAGE 48	5290 PAGE 52	5292 PAGE 52	5648 PAGE 53	4608 PAGE 54	4616 PAGE 55	4614 PAGE 55
		COVERALL	COVERALL	POLO SHIRT	LADIES' POLO SHIRT	SWEATSHIRT	SOFTSHELL JACKET	TROUSER	LADIES' TROUSER	WATERPROOF JACKET	WATERPROOF SALOPETTES	COVERALL	LADIES' COVERALL	LIGHTWEIGHT WATERPROOF JACKET	LIGHTWEIGHT WATERPROOF SALOPETTES	POLO SHIRT	LADIES' POLO SHIRT	SWEATSHIRT	JACKET	TROUSER	LADIES' TROUSER
		NAVY/YELLOW	NAVY/YELLOW	HV YELLOW	HV YELLOW	HV YELLOW	HV YELLOW/NAVY	HV YELLOW	HV YELLOW	HV YELLOW/NAVY	HV YELLOW/NAVY	HV YELLOW/NAVY	HV YELLOW	HV YELLOW	HV YELLOW / NAVY	HV YELLOW / NAVY	HV ORANGE	HV ORANGE	HV ORANGE	HV ORANGE	HV ORANGE
		160 GMS	290GMS + 240 GMS	210 GMS	210 GMS	320 GMS	340 GMS	240 GMS	240 GMS	395 GMS + 200 GMS	395 GMS + 200 GMS	240 GMS	240 GMS	250 GMS + 120 GMS	250 GMS + 120 GMS	210 GMS	210 GMS	430 GMS	290 GMS	290 GMS	290 GMS
	PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC <small>OPEN ARC TEST METHOD CAL RATING</small>	5 CAL/CM²	8 CAL/CM²			13.2 CAL/CM²	28 CAL/CM²	9.5 CAL/CM²	9.5 CAL/CM²	47 CAL/CM²	47 CAL/CM²	9.5 CAL/CM²	9.5 CAL/CM²	25 CAL/CM²	25 CAL/CM²	6 CAL/CM²	6 CAL/CM²	21.6 CAL/CM²	8 CAL/CM²	8 CAL/CM²	8 CAL/CM²
	PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC <small>BOX TEST METHOD, CLASS 1 OR 2</small>	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 2	CLASS 1	CLASS 1	CLASS 2	CLASS 2	CLASS 1	CLASS 1	CLASS 2	CLASS 2	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1	CLASS 1
	CLOTHING TO PROTECT AGAINST HEAT & FLAME <small>(LETTER 'A' LIMITED FLAME SPREAD, LETTER 'B' CONVECTIVE HEAT, LETTER 'C' RADIANT HEAT, LETTER 'D' MOLTEN ALUMINIUM SPLASH, LETTER 'E' MOLTEN IRON SPLASH, LETTER 'F' CONTACT HEAT)</small>	A1, B1, C1, F1	A1, B1, C1, F1	A1, B1, C1, F1	A1, B1, C1, F1	A1, B1, C1	A1, B1, C1, F1	A1, B1, C1, E1	A1, B1, C1, E1	A1, B1, C1, D2, E3, F1	A1, B1, C1, D2, E3, F1	A1, B1, C1	A1, B1, C1	A1, B1, C1 D1, E1, F1	A1, B1, C1 D1, E1, F1	A1, B1, C1	A1, B1, C1	A1, B1, C1	A1, B1, C1, F1	A1, B1, C1, F1	A1, B1, C1, F1
	PROTECTIVE CLOTHING WITH ELECTROSTATIC PROPERTIES		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	PROTECTIVE CLOTHING FOR WELDING AND ALLIED PROCESSES <small>(CLASS 1 OR 2)</small>		CLASS 1, A1					CLASS 1, A1	CLASS 1, A1	CLASS 2, A1	CLASS 2, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1				CLASS 1, A1	CLASS 1, A1	CLASS 1, A1
	HIGH VISIBILITY CLOTHING <small>(CLASS 1, 2 OR 3)</small>	CLASS 3	CLASS 3	CLASS 3	CLASS 2	CLASS 3	CLASS 3	CLASS 2	CLASS 1	CLASS 3	CLASS 2	CLASS 3	CLASS 3	CLASS 3	CLASS 1	CLASS 3	CLASS 2	CLASS 3	CLASS 3	CLASS 1	CLASS 1
	RAIL STANDARD HIGH VISIBILITY GO/RT		ISSUE 1													ISSUE 1	ISSUE 1	ISSUE 1	ISSUE 1	ISSUE 1	ISSUE 1
	PROTECTION AGAINST RAIN									CLASS 3/3	CLASS 3/3		CLASS 3/3	CLASS 3/3							
	PROTECTION AGAINST CHEMICAL LIQUIDS									GARMENT	GARMENT		GARMENT	GARMENT							

# PRODUCT MATRIX

HI-VIS ORANGE COLLECTION							BASELAYERS COLLECTION			BASELAYERS COLLECTION																					
 <b>9440</b> PAGE 56	 <b>9660</b> PAGE 57	 <b>4690</b> PAGE 58	 <b>4692</b> PAGE 58	 <b>9422</b> PAGE 59	 <b>9622</b> PAGE 60	 <b>8210</b> PAGE 64	 <b>8220</b> PAGE 65	 <b>8100</b> PAGE 66			 <b>8300</b> PAGE 66	 <b>8400</b> PAGE 66	 <b>8700</b> PAGE 67	 <b>8770</b> PAGE 68	 <b>2101</b> PAGE 68	 <b>2102</b> PAGE 68															
																	WATERPROOF JACKET	WATERPROOF SALOPETTES	COVERALL	LADIES' COVERALL	LIGHTWEIGHT WATERPROOF JACKET	LIGHTWEIGHT WATERPROOF SALOPETTES	BASELAYER TOP	BASELAYER LEGGINGS	BALACLAVA	SNOOD	HELMET LINER	BOXER BRIEFS	FR BRA	COMPRESSION SOCKS	GENERAL BOOT SOCKS
																	HV ORANGE	HV ORANGE	HV ORANGE	HV ORANGE	HV ORANGE	HV ORANGE	NAVY	NAVY	NAVY	NAVY	NAVY	NAVY	BLACK	NAVY	NAVY
																	395 GMS + 200 GMS	395 GMS + 200 GMS	290 GMS	290 GMS	250 GMS + 120 GMS	250 GMS + 120 GMS	220 GMS	220 GMS	220 GMS	220 GMS	220 GMS	180 GMS	330 GMS	180 GMS	180 GMS
 PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC OPEN ARC TEST METHOD CAL RATING	<b>47</b> CAL/CM²	<b>47</b> CAL/CM²	<b>8</b> CAL/CM²	<b>8</b> CAL/CM²	<b>25</b> CAL/CM²	<b>25</b> CAL/CM²	<b>4.9</b> CAL/CM²	<b>4.9</b> CAL/CM²																							
 PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF ELECTRIC ARC BOX TEST METHOD, CLASS 1 OR 2	CLASS 2	CLASS 2	CLASS 1	CLASS 1	CLASS 2	CLASS 2																									
 CLOTHING TO PROTECT AGAINST HEAT & FLAME (LETTER 'A' LIMITED FLAME SPREAD, LETTER 'B' CONVECTIVE HEAT, LETTER 'C' RADIANT HEAT, LETTER 'D' MOLTEN ALUMINIUM SPLASH, LETTER 'E' MOLTEN IRON SPLASH, LETTER 'F' CONTACT HEAT)	A1, B1, C1, D2, E3, F1	A1, B1, C1, D2, E3, F1	A1, B1, C1, F1	A1, B1, C1, F1	A1, B1, C1 D1, E1, F1	A1, B1, C1 D1, E1, F1	A1, B1, C1	A1, B1, C1	A1, B1, C1		A1, B1, C1	A1, B1, C1	A1, B1, C1	A1, B1, C1	A1, B1, C1	A1, B1, C1															
 PROTECTIVE CLOTHING WITH ELECTROSTATIC PROPERTIES																															
 PROTECTIVE CLOTHING FOR WELDING AND ALLIED PROCESSES (CLASS 1 OR 2)	CLASS 2, A1	CLASS 2, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1	CLASS 1, A1																									
 HIGH VISIBILITY CLOTHING (CLASS 1, 2 OR 3)	CLASS 3	CLASS 2	CLASS 3	CLASS 3	CLASS 3	CLASS 1																									
 RAIL STANDARD HIGH VISIBILITY GO/RT	ISSUE 1	ISSUE 1	ISSUE 1	ISSUE 1	ISSUE 1	ISSUE 1																									
 PROTECTION AGAINST RAIN	CLASS 3/3	CLASS 3/3			CLASS 3/3	CLASS 3/3																									
 PROTECTION AGAINST CHEMICAL LIQUIDS	GARMENT	GARMENT			GARMENT	GARMENT																									



# SIZE GUIDELINES

POLO SHIRTS, T-SHIRTS, SWEATSHIRTS									
UK SIZE	XS	S	M	L	XL	2XL	3XL	4XL	5XL
EU/GERMAN SIZE	44-46	48-50	52-54	56-58	60-62	64-66	68-70	72-74	76-78
CHEST - (INCHES)	37.8	40.1	42.5	44.9	48.0	51.0	54.3	57.5	60.5
CHEST TO FIT (INCHES)	34-36	36-38	38-41	41-44	44-46	46-50	50-52	52-56	56-58
CHEST - (CM)	96.0	102.0	108.0	114.0	122.0	130.0	138.0	146.0	154.0
CHEST TO FIT (CM)	85-90	90-95	95-102.5	102.5-110	110-115	115-125	125-130	130-140	140-145

SOFTSHELL JACKET									
UK SIZE	XS	S	M	L	XL	2XL	3XL	4XL	5XL
EU/GERMAN SIZE	44-46	48-50	52-54	56-58	60-62	64-66	68-70	72-74	76-78
CHEST - (INCHES)	37.8	40.1	42.5	44.9	48.0	51.0	54.3	57.5	60.5
CHEST TO FIT (INCHES)	34-36	36-38	38-41	41-44	44-46	46-50	50-52	52-56	56-58
CHEST - (CM)	96.0	102.0	108.0	114.0	122.0	130.0	138.0	146.0	154.0
CHEST TO FIT (CM)	85-90	90-95	95-102.5	102.5-110	110-115	115-125	125-130	130-140	140-145

LADIES POLO SHIRTS									
UK SIZE	8	10	12	14	16	18	20	22	24
EU/GERMAN SIZE	40-42	42-44	44-46	48-50	50-52	54-56	56-58	60-62	64-66
BUST - (INCHES)	37.4	39.4	41.4	43.3	45.3	47.2	49.2	51.2	53.2
BUST TO FIT - (INCHES)	34-36	36-38	38-40	40-42	42-44	44-46	46-48	48-50	50-52
BUST - (CM)	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0	135.0
BUST TO FIT - (CM)	85-90	90-95	95-100	100-105	105-110	110-115	115-120	120-125	125-130

FLEECE JACKETS									
UK SIZE	XS	S	M	L	XL	2XL	3XL	4XL	5XL
EU/GERMAN SIZE	44-46	48-50	52-54	56-58	60-62	64-66	68-70	72-74	76-78
CHEST - (INCHES)	38.6	42.5	46.5	50.4	54.3	58.3	62.2	66.1	70.1
CHEST TO FIT (INCHES)	34-36	36-38	38-41	41-44	44-46	46-50	50-52	52-56	56-58
CHEST - (CM)	98	108.0	118.0	128.0	138.0	148.0	158.0	168.0	178.0
CHEST TO FIT (CM)	85-90	90-95	95-102.5	102.5-110	110-115	115-125	125-130	130-140	140-145

JACKETS									
UK SIZE	XS	S	M	L	XL	2XL	3XL	4XL	5XL
EU/GERMAN SIZE	44-46	48-50	52-54	56-58	60-62	64-66	68-70	72-74	76-78
CHEST - (INCHES)	43.3	44.9	48.8	52.8	56.7	60.6	64.6	68.5	72.4
CHEST TO FIT (INCHES)	34-36	36-38	38-41	41-44	44-46	46-50	50-52	52-56	56-58
CHEST - (CM)	110.0	114.0	124.0	134.0	144.0	154.0	164.0	174.0	184.0
CHEST TO FIT (CM)	85-90	90-95	95-102.5	102.5-110	110-115	115-125	125-130	130-140	140-145

WATERPROOF JACKETS & SALOPETTES									
UK SIZES	XS	S	M	L	XL	2XL	3XL	4XL	5XL
EU/GERMAN SIZES (TOP)	44-46	48-50	52-54	56-58	60-62	64-66	68-70	72-74	76-78
EU SIZES (WAIST)	89	94	99	104	109	114	119	124	129
GERMAN SIZES (WAIST)	50	52	54	56	58	60	62	64	66
CHEST (JACKET) - (INCHES)	42.5	44.9	47.2	49.6	52.0	54.3	56.7	59.1	61.4
CHEST TO FIT (JACKET) - (INCHES)	34-36	36-38	38-41	41-44	44-46	46-50	50-52	52-56	56-58
WAIST (SALOPETTE) - (INCHES)	35.0	37.0	39.0	41.0	43.0	45.0	47.0	49.0	51.0
INSIDE LEG (SALOPETTE) - (INCHES)	32	32	32	32	32	32	32	32	32
CHEST (JACKET) - (CM)	108.0	114.0	120.0	126.0	132.0	138.0	144.0	150.0	156.0
CHEST TO FIT (JACKET) - (CM)	85-90	90-95	95-102.5	102.5-110	110-115	115-125	125-130	130-140	140-145
WAIST (SALOPETTE) - (CM)	89.0	94.0	99.0	104.0	109.0	114.0	119.0	124.0	129.0
INSIDE LEG (SALOPETTE) - (CM)	81	81	81	81	81	81	81	81	81

BASELAYER TOPS & LEGGINGS (SNUG FIT)									
UK SIZES	XS	S	M	L	XL	2XL	3XL	4XL	5XL
EU/GERMAN SIZES (TOP)	44-46	48-50	52-54	56-58	60-62	64-66	68-70	72-74	76-78
EU SIZES (WAIST)	78	84	90	96	102	110	118	126	134
GERMAN SIZES (WAIST)	40	42	46	50	54	58	60	64	66
CHEST (TOP) - (INCHES)	34.6	37.8	40.9	44.1	47.2	50.4	53.5	56.7	59.9
CHEST TO FIT (TOP) - (INCHES)	34-36	36-38	38-41	41-44	44-46	46-50	50-52	52-56	56-58
WAIST (LEGGINGS) - (INCHES)	26.8	29.9	33.1	36.2	39.4	42.5	45.7	48.8	51.9
CHEST (TOP) - (CM)	88	96	104	112	120	128	136	144	152
CHEST TO FIT (TOP) - (CM)	85-90	90-95	95-102.5	102.5-110	110-115	115-125	125-130	130-140	140-145
WAIST (LEGGINGS) - (CM)	68	76	84	92	100	108	116	124	132

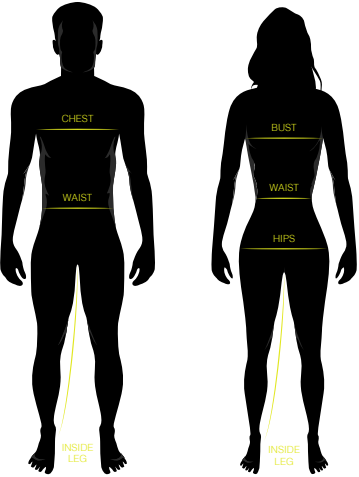
Note: This size chart was correct at the time of going to print.

LADIES TROUSERS									
UK SIZE	8	10	12	14	16	18	20	22	24
EU/GERMAN SIZE	34	36	38	40	42	44	46	48	50
WAIST - (INCHES)	30.7	32.7	34.6	36.6	38.6	40.6	42.5	44.5	46.5
HIP - (INCHES)	40.6	42.5	44.5	46.5	48.4	50.4	52.4	54.3	56.3
INSIDE LEG - SHORT LEG - (INCHES)	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
INSIDE LEG - REGULAR LEG - (INCHES)	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
INSIDE LEG - TALL LEG - (INCHES)	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
WAIST - (CM)	78	83	88	93	98	103	108	113	118
HIP - (CM)	103	108	113	118	123	128	133	138	143
INSIDE LEG - SHORT LEG - (CM)	70	70	70	70	70	70	70	70	70
INSIDE LEG - REGULAR LEG - (CM)	75	75	75	75	75	75	75	75	75
INSIDE LEG - TALL LEG - (CM)	80	80	80	80	80	80	80	80	80

LADIES COVERALLS									
UK SIZE	8	10	12	14	16	18	20	22	24
EU/GERMAN SIZE	40-42	42-44	44-46	48-50	50-52	54-56	56-58	60-62	64-66
BUST - (INCHES)	39.8	40.6	42.1	43.7	45.3	46.9	48.4	50.0	51.6
BUST TO FIT - (INCHES)	34-36	36-38	38-40	40-42	42-44	44-46	46-48	48-50	50-52
INSIDE LEG - SHORT LEG - (INCHES)	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
INSIDE LEG - REGULAR LEG - (INCHES)	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
INSIDE LEG - TALL LEG - (INCHES)	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
BUST - (CM)	101	103	107	111	115	119	123	127	131
BUST TO FIT - (CM)	85-90	90-95	95-100	100-105	105-110	110-115	115-120	120-125	125-130
INSIDE LEG - SHORT LEG - (CM)	70	70	70	70	70	70	70	70	70
INSIDE LEG - REGULAR LEG - (CM)	75	75	75	75	75	75	75	75	75
INSIDE LEG - TALL LEG - (CM)	80	80	80	80	80	80	80	80	80

MENS TROUSERS												
UK SIZE	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"	50"	52"
EU SIZE	75	80	85	90	95	100	105	110	115	120	125	130
GERMAN SIZE	22	23	24	26	27	28	29	30	31	32	33	34
WAIST - (INCHES)	31.9	33.9	35.8	37.8	39.8	41.7	43.7	45.7	47.6	49.6	51.6	53.5
WAIST TO FIT - (INCHES)	30.0	32.0	34.0	36.0	38.0	40.0	42.0	44.0	46.0	48.0	50.0	52.0
INSIDE LEG - SHORT LEG - (INCHES)	30	30	30	30	30	30	30	30	30	30	30	30
INSIDE LEG - REGULAR LEG - (INCHES)	32	32	32	32	32	32	32	32	32	32	32	32
INSIDE LEG - TALL LEG - (INCHES)	34	34	34	34	34	34	34	34	34	34	34	34
WAIST - (CM)	81	86	91	96	101	106	111	116	121	126	131	136
WAIST TO FIT - (CM)	75	80	85	90	95	100	105	110	115	120	125	130
INSIDE LEG - SHORT LEG - (CM)	76	76	76	76	76	76	76	76	76	76	76	76
INSIDE LEG - REGULAR LEG - (CM)	81	81	81	81	81	81	81	81	81	81	81	81
INSIDE LEG - TALL LEG - (CM)	86	86	86	86	86	86	86	86	86	86	86	86

MENS COVERALLS												
S-4XL	S	M	L	XL	2XL	3XL	4XL					
UK SIZE	38"	40"	42"	44"	46"	48"	50"	52"	54"	56"	58"	60"
EU/GERMAN SIZE	24	25	26	28	29	30	31	32	-	33	-	34
CHEST - (INCHES)	47.6	49.6	51.6	53.5	55.5	57.5	59.4	61.4	63.4	65.4	67.3	69.3
CHEST TO FIT - (INCHES)	36-38	38-40	40-42	42-44	44-46	46-48	48-50	50-52	52-54	54-56	56-58	58-60
INSIDE LEG - SHORT LEG - (INCHES)	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
INSIDE LEG - REGULAR LEG - (INCHES)	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
INSIDE LEG - TALL LEG - (INCHES)	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
CHEST - (CM)	121	126	131	136	141	146	151	156	161	166	171	176
CHEST TO FIT - (CM)	90-95	95-100	100-105	105-110	110-115	115-120	120-125	125-130	130-135	135-140	140-145	145-150
INSIDE LEG - SHORT LEG - (CM)	75	75	75	75	75	75	75	75	75	75	75	75
INSIDE LEG - REGULAR LEG - (CM)	80	80	80	80	80	80	80	80	80	80	80	80
INSIDE LEG - TALL LEG - (CM)	85	85	85	85	85	85	85	85	85	85	85	85



## HOW TO MEASURE AND PICK THE RIGHT SIZE

### Chest / Bust measurement

Measure the circumference of your chest/bust below the armpit, measure the widest point.

example 1: if your chest measures 102cm, for polo shirt the most suitable size would be M.

example 2: if your bust measures 98cm, for ladies' polo shirt the most suitable size would be 12.

Note: some garments such as Softshell Jackets would have a slim fit and it may be best to pick one size up if you prefer a looser fit.

### Waist measurement

Measure tightly around the waist and pick size accordingly, if your measurements fall in-between two sizes, we recommend picking the larger one, remember to check your inside leg measurement.

### Hip measurement

# BRANDING AND GARMENT ALTERATIONS

## NOTES



### BRANDING

We recommend using Flame Resistant heat transfers or Flame Resistant embroidery threads for branding on any of our Arc Flash and Flame Resistant garments to ensure compliance with the original CE certification. We also take care when adding branding to hi-vis garments, that large logos don't reduce the surface area of the background material as specified in EN20471 and EN471.



### FLAME RESISTANT HEAT TRANSFERS

Heat applied transfers contain a Flame Resistant component and have been tested and certified to the EN11612 Heat & Flame European Standard. Transfers are easy to apply using an industrial heat press and can be printed in any Pantone® colour for exact replication of your company logo or brand. We can pre-order bulk quantity transfers and apply them to your garments quickly before dispatch.

### FR EMBROIDERY THREADS

Standard embroidery threads are usually polyester blends which burn, melt and drip when exposed to flame, so using this type of thread on embroidered designs poses a serious risk. We always use military grade meta-aramid Flame Resistant threads when applying emblems to any of our garments.

### GARMENT ALTERATIONS

All our products are stocked for fast delivery, but we can make alterations providing they don't compromise the conformity of the garment. We can shorten and re-hem trousers or some coveralls for example. For special sizes, or more detailed alterations, please contact our Customer Service Team to discuss how we can help and the typical delivery times and minimum order quantities.



[illegible][illegible]



**UK SALES OFFICE**

UNIT 7, LUMLEY COURT  
DRUM INDUSTRIAL ESTATE  
CHESTER-LE-STREET  
DH2 1AN

**CALL: 0191 410 4292**

**OR EMAIL: [UKSALES@THORNEANDDERRICK.CO.UK](mailto:UKSALES@THORNEANDDERRICK.CO.UK)**

**[WWW.POWERANDCABLES.COM](http://WWW.POWERANDCABLES.COM)**

Whilst every effort has been made to ensure the accuracy of all product descriptions, sizes and specifications, continual development of our product range means that certain details may change without notice. Though we make every attempt to ensure the colours of our products are reproduced as accurately as possible, they are provided for illustrative purposes and may differ from the actual product you receive. We reserve the right to improve products from our collection without notices.

ProGARM<sup>®</sup>, VXS+, ThermSAFE and SafetyICON, and any graphic devices, are all registered trademarks of ProGARM<sup>®</sup> Ltd