

# Flame King

## User Information

<b>Manufacturer</b>	Bell Apparel Limited Hawkins Drive Cannock Staffordshire WS11 0XT										
<b>Product Designation</b>	FK26 Arcflex Flameking Multi Hazard Salopette										
<b>Coverage</b>  EN ISO 11612 : 2008	Salopette  Must be worn with compatible FR non-melt under garments.										
<b>Instructions for cleaning, disinfection, decontamination, maintenance and servicing and storage</b>	<p><b><u>Cleaning, disinfection and decontamination</u></b></p> <table border="1" data-bbox="528 790 1461 927"> <tr> <td data-bbox="528 790 715 875">  </td> <td data-bbox="715 790 901 875">  </td> <td data-bbox="901 790 1088 875">  </td> <td data-bbox="1088 790 1275 875">  </td> <td data-bbox="1275 790 1461 875">  </td> </tr> <tr> <td data-bbox="528 875 715 927">                 Machine Wash             </td> <td data-bbox="715 875 901 927">                 Do Not Bleach             </td> <td data-bbox="901 875 1088 927">                 Iron Cool             </td> <td data-bbox="1088 875 1275 927">                 Do Not Dry Clean             </td> <td data-bbox="1275 875 1461 927">                 Warm Tumble Dry             </td> </tr> </table> <p>To ensure long term performance, clean at a maximum 40°C reduced action wash in a computer-controlled, programmable industrial machine at Bell Apparel Ltd or at a service facility approved by Bell Apparel Ltd.</p> <p>Use only near neutral, non-ionic detergent. Close all zips and fasteners before washing. Not suitable for domestic tumble drying or tunnel drying. Suitable for temperature controlled commercial tumble dry at maximum 60°C to partially dry, then air dry. Garments should be tumble/air dried lining side out.</p> <p>Disinfection or decontamination of garments must only be carried out by Bell Apparel Ltd or by trained experts at a service facility approved by Bell Apparel Ltd.</p> <p><b><u>Maintenance and Servicing.</u></b></p> <p>The wearer should carry out regular inspections to detect obvious damage, deterioration and contamination. The garment should then be sent to Bell Apparel Ltd or to a service facility approved by Bell Apparel Ltd for cleaning and inspection by a trained and competent person.</p> <p>Do not attempt to modify or self-repair this garment. Do not iron reflective tape. Repairs should only be carried out by Bell Apparel Ltd or a service facility approved by Bell Apparel Ltd.</p> <p>Damaged, incorrect fitting or contaminated garments can present a risk to the wearer. Continued fitness for purpose is dependent on inspection and maintenance in accordance with EU Directive 89/656/EEC, transposed into UK Law as the PPE at Work Regulations 1992</p> <p>For more information on PPE servicing and compliance, visit <a href="http://www.bell-apparel.com">www.bell-apparel.com</a></p> <p><b><u>Storage</u></b></p> <p>This garment should be stored in a clean, dry and ventilated place away from direct vehicle fume sources. After use, it must be dried before placing back in storage.</p> <p>Product Warranty claims will not be accepted where these instructions have not been fully adhered to.</p>						Machine Wash	Do Not Bleach	Iron Cool	Do Not Dry Clean	Warm Tumble Dry
											
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**EN 20471: 2013 Intended use:**

Complies with EN 20471: 2013 High Visibility

KEEP CLEAN. Should the high visibility properties of this garment become unrecoverable, soiled or contaminated, replace it with a new one.

Regular comparisons must be carried out. Garments must be worn fully fastened.

**RIS-3279-TOM Intended Use:**

This garment conforms to railway industry standard RIS-3279-TOM for high visibility clothing.  
High Visibility clothing worn on or near the line.

**EN 1149 Intended use:**

Complies with EN 1149-3:2004 and EN 1149-5:2008

This garment has been designed to avoid incendiary discharges in areas where there is a risk of ignition by electrostatic discharge, including in sensitive flammable atmospheres such as Air/Hydrogen. It may not prevent discharges capable of igniting an Oxygen enriched atmosphere. This garment is not intended to give protection against mains voltages.

**EN 343 Intended use:**

These garments are classified as Class 3 of EN 343 for Water Penetration Resistance, where Class 1 is the lowest performance and Class 3 is the highest performance.

Water Vapour Resistance:

These garments are breathable to Class 3 of EN 343 to enable water vapour to escape from inside the garments. Class 3 is the highest performance. However, additional ventilation may be required depending on wearer activity and ambient temperature.

**EN ISO 11612 intended use (for non-molten metal usage):**

This garment has been designed to give a specified level of protection against accidental contact with flame and against certain forms of heat transfer.

The garment conforms to EN ISO 11612:2008 "Protective clothing — Clothing to protect against heat and flame". It meets the following requirements:

- Code Letter A1 – Limited Flame Spread (Face)
- Code Letter A2 – Limited Flame Spread (Edge)
- Code Letter B – Convective Heat (to Level B1)
- Code Letter C – Radiant Heat (to Level C1)

It is not designed to protect against molten aluminium and iron splash (Code Letters D and E) or for use in welding and similar activities.

**IEC 61482-2 intended use:**

This garment has been designed to give a specified level of protection against the thermal hazards of an electric arc flash, and conforms to IEC 61482-2:2009 "Live working – Protective clothing against the thermal hazards of an electric arc – Part 2: Requirements". The garment/fabric was tested using the EN 61482-1-2:2007 'Box arc' test method.

It also meets the following requirements of IEC 61482-2: 2009: Short Circuit Current Test Class 2

In the design of these garments due respect had been paid to the basic health and safety requirements laid out in Annex II of the PPE directive (89/686/EEC).

**EN ISO 11611 / 11612 intended use (for non-molten metal usage):**

This garment has been designed to give a specified level of protection primarily for use in welding and cutting operations.

The garment conforms with EN ISO 11611:2015 "Protective clothing for use in welding and allied processes". Welders' protective clothing produced to this standard does not spread flame when accidentally contacted with an igniting flame. It protects the wearer against small drops of molten metal from welding or cutting, but not necessarily against large splashes of molten metal in foundry operations. It provides protection against radiant heat and short term, accidental electrical contact. It meets the following requirements:




EN ISO 11611 Class 2 Code Letter A1 - Limited Flame Spread (Face)





In the design of these garments due respect had been paid to the basic health and safety requirements laid out in Annex II of the PPE directive (89/686/EEC)

For operational reasons not all welding voltage carrying parts of arc welding installations can be protected against direct contact;

Additional partial body protection may be required, e.g. for welding overhead;

The garment is only intended to protect against brief inadvertent contact with live parts of an arc welding circuit, and that additional electrical insulation layers will be required where there is an increased risk of electric shock; garments meeting the requirements of 6.10 are designed to provide protection against short term, accidental contact with live electric conductors at voltages up to approximately 100 V d.c.

<p><b>EN ISO 11612</b> Chemical / fuel splash</p>	<p>In the event of an accidental splash of chemical or flammable liquids on clothing whilst being worn, the wearer should immediately withdraw and carefully remove the garments, ensuring that the chemical or liquid does not come in contact with any part of the skin. The clothing shall then be cleaned in accordance with this User Information Sheet or removed from service.</p>
<p><b>EN 1149-5:</b></p>	<ul style="list-style-type: none"> <li>• The person wearing the electrostatic dissipative protective clothing shall be properly earthed. The resistance between the person and earth shall be less than <math>10^8 \Omega</math>, e.g. by wearing adequate footwear.</li> <li>• Electrostatic dissipative protective clothing shall not be opened or removed whilst in presence of flammable or explosive atmospheres or while handling flammable or explosive substances</li> <li>• Jacket must be worn fully fastened at all times.</li> <li>• Electrostatic dissipative protective clothing shall not be used in oxygen enriched atmospheres without prior approval of the responsible safety engineer</li> <li>• The electrostatic dissipative performance of the electrostatic dissipative protective clothing can be affected by wear and tear, laundering and possible contamination.</li> <li>• Electrostatic dissipative protective clothing shall permanently cover all non-complying materials during normal use (including bending and movements).</li> </ul>
<p><b>IEC 61482 2009</b></p>	<ul style="list-style-type: none"> <li>• Environmental conditions and risks at the working site shall be considered prior to the use of this garment.</li> <li>• Deviations from the parameters in IEC 61482-2 may result in more severe conditions</li> <li>• No undergarments or under layers should be used which melt under arc exposure, e.g. made of polyamide, polyester or acrylic.</li> </ul>
<p><b>The class of protection and the limits of use</b></p>	<p>Covered above.</p>
<p><b>Performance / test results</b></p>	<p>Covered above.</p>
<p><b>Suitable PPE accessories and appropriate spares</b></p>	<p>For full body protection, the protective clothing shall be worn closed/fastened and other suitable PPE shall be used (helmet and face screen, gloves with cuffs, footwear).</p>
<p><b>Obsolescence deadline</b> <b>EN ISO 11612</b></p>	<p>Replace if torn or damaged beyond economic repair.  A textile finish cannot restore the thermal protective properties of this garment.</p>
<p><b>Packaging suitable for transport</b></p>	<p>This garment is suitable for transportation as supplied by the manufacturer.</p>
<p><b>EN 1149 – 3 2004 &amp; EN 1149 – 5 2008</b></p>	<div style="display: flex; align-items: center;">  <div> <p>EN 1149 – 3 EN 1149 – 5</p> </div> </div>
<p><b>EN 343 3. 3: 2003</b></p>	<div style="display: flex; align-items: center;">  <div> <p>EN 343:2003 Class X = Class 3. Y = Class 3. X (Water Penetration Resistance class) Y (Water Vapour Resistance class)</p> </div> </div>
<p><b>EN ISO 11612</b></p>	<div style="display: flex; align-items: center;">  <div> <p>EN ISO 11612 A1 A2 B1 C1</p> </div> </div>

IEC 61482 2009		IEC 61482 Class 2 Arc protection
EN20471 : 2013 Class 1		EN 20471 Class 3 High Visibility Classification 1 (Class 1 lowest - Class 3 highest)
EN ISO 11611: 2015		EN ISO 11611 Class 2 A1
EN ISO 13034 TYPEPB (6)	 EN 13034	Chemical protective Salopette PB (6) forms the lowest level of chemical protection and is intended to be used if risks have been assessed as low and a full liquid permeation barrier is not necessary, i.e. when wearers are able to take timely adequate action when their clothing is contaminated. Low risks could be e.g. a potential exposure to small quantities of spray or accidental low volume splashes.
Guidance on recycling, destruction or disposal of the garment.	These products cannot be recycled. Please dispose in the correct general waste methods or use an authorised garment disposal company.	
EN ISO 11612 Annex C (manikin test)	If the optional whole garment test in 7.8 has been performed, the manufacturer shall provide a report in the information, which shall contain at least the results according to indent d) of Annex C.	
The name, address and identification number of the Notified Body	Notified Body No. 0338, BTTG Testing & Certification, Unit 14 Wheel Forge Way, Trafford Park, Manchester, M17 1EH, UK.	

**EN 343:2003 Annex A - Recommendations for Wearing Time (Mandatory for Class 1 garments)**

Table A.1 – Recommended maximum continuous wearing time (in minutes) for a complete suit consisting of jacket and trousers without thermal lining

Temperature of working environment °C	Class		
	1	2	3
	$R_{et}$ above 40 min	$20 < R_{et} \leq 40$ min	$R_{et} \leq 20$ min
25	60	105	205
20	75	250	–
15	100	–	–
10	240	–	–
5	–	–	–

"–" means: no limit for wearing time.

Table valid for medium physiological strain  $M = 150 \text{ W/m}^2$ , standard-man, at 50% relative humidity, and wind speed  $v_a = 0.5 \text{ m/s}$

With effective ventilation openings and/or break periods the time for wearing can be prolonged.



TABLE A

Type of welders clothing	TABLE A	
	Relating to the process	Relating to the environmental conditions
Class 1	<p>Manual welding techniques with light formation of spatters and drops, e.g.:</p> <ul style="list-style-type: none"> <li>- gas welding</li> <li>- TIG welding</li> <li>- MIG welding</li> <li>- micro plasma welding</li> <li>- brazing</li> <li>- spot welding</li> <li>- MMA welding (with rutile covered electrode)</li> </ul>	<p>Operation of machines, e.g. of:</p> <ul style="list-style-type: none"> <li>- oxygen cutting machines</li> <li>- plasma cutting machines</li> <li>- resistance welding machines</li> <li>- machines for thermal spraying</li> <li>- bench welding</li> </ul>
Class 2	<p>Manual welding techniques with heavy formation of spatters and drops, e.g.:</p> <ul style="list-style-type: none"> <li>- MMA welding (with basic or cellulose covered electrode)</li> <li>- MAG welding (with CO<sub>2</sub> or mixed gases)</li> <li>- MIG welding (with high current)</li> <li>- self-shielded flux cored arc welding</li> <li>- plasma cutting</li> <li>- gauging</li> <li>- oxygen cutting</li> <li>- thermal spraying</li> </ul>	<p>Operation of machines, e.g.:</p> <ul style="list-style-type: none"> <li>- in confined spaces</li> <li>- at over head welding/cutting or in comparable constrained positions</li> </ul>