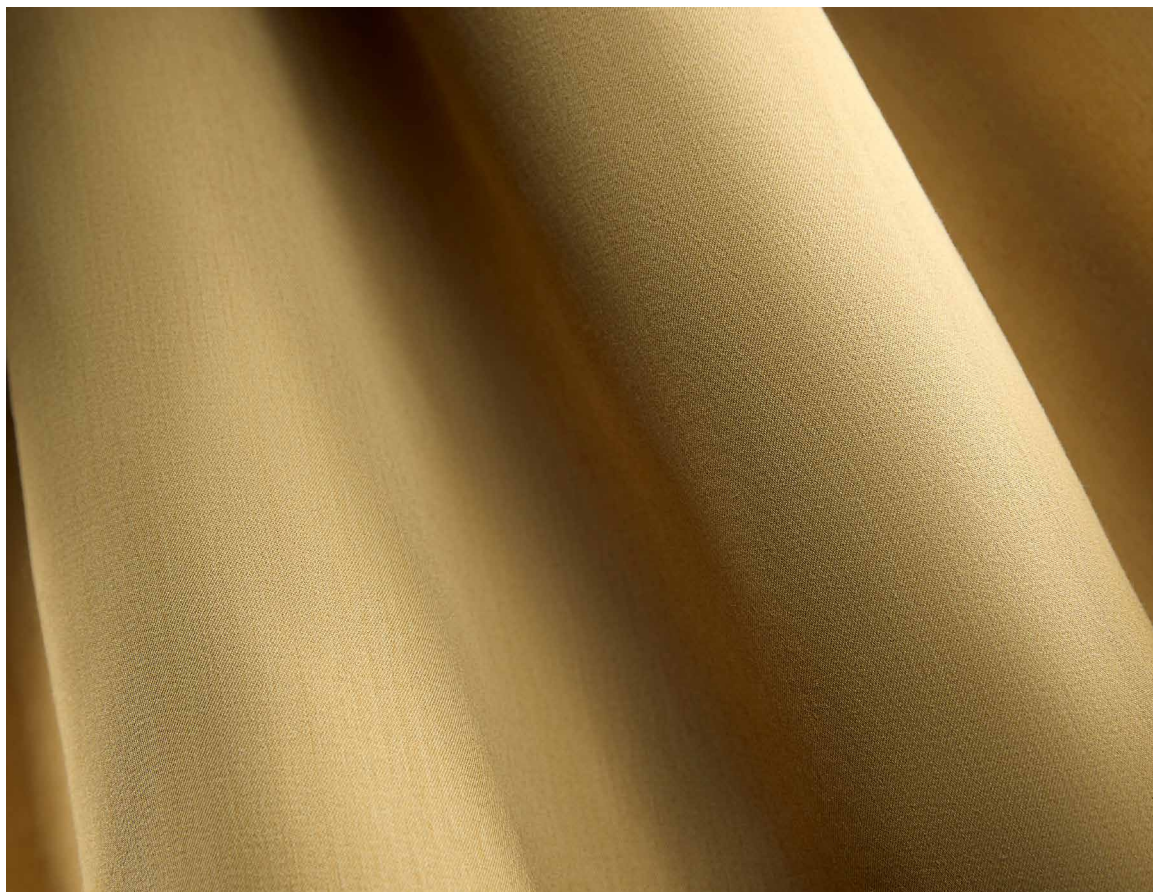




HAINSWORTH®
PROTECTIVE FABRICS



pbi[®]NRG^{LP}
A HAINSWORTH TECHNOLOGY

**The lightweight, highly durable textile from
Hainsworth Protective Fabrics and PBI.**



PBI NRG LP is a tightly woven yet lightweight fabric for structural firefighting outer shells. This premium product combines Hainsworth's fabric technology expertise with PBI's market-leading fibre, providing supreme comfort, flame resistance and chemical protection..

Key features

- A lightweight 190gsm fabric
- Moves with the wearer, reducing risk of heat stress
- Exceptional abrasion resistance and durability
- Woven with PBI LP, a lightweight fibre with a break-open point of 200°F (93°C)
- Tight gabardine twill for increased liquid chemical run-off
- Excellent thermal protection, minimising heat ingress.

Hainsworth design, PBI fibre

PBI NRG LP is designed and developed by Hainsworth to provide a perfect balance between protection and comfort.

- The face of the fabric has two warps, tightly packing fibres in a twill structure which gives maximum resistance to liquid penetration and aids chemical run off. This is important for protecting the wearer from carcinogens, and helps to keep the garment clean.
- PBI NRG LP is highly durable, and can withstand a high number of wash cycles without losing any of its protective qualities.
- The inclusion of PBI LP fibre allows the fabric to withstand extremely high temperatures, protecting the wearer in the worst case scenario.
- PBI NRG LP is a lighter-weight fabric, designed for the strenuous activity carried out by firefighters. The fabric is woven with lightweight fibres in a structure that provides increased flexibility and comfort, placing less strain on the wearer and reducing the risk of heat stress - all without sacrificing any of its protective qualities.

Why is this important?

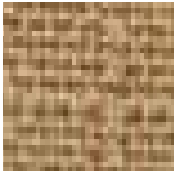
PBI NRG LP offers excellent protection in the toughest conditions. But firefighters don't just need protection during active fire scenarios - they need to be protected from any residual chemicals or carcinogens afterwards too. The chemical repellency and increased liquid run off offered by PBI NRG LP lower the risk of exposure to harmful contaminants that may otherwise remain on the garment.

Further benefits

PBI NRG LP not only keeps the wearer safe, it keeps them smart too. With excellent durability and colour fastness, the fabric maintains its appearance for longer.

The majority of PPE fabrics need to be frequently re-impregnated with water repellent chemicals to prolong their lifespan. This is not the case with PBI NRG LP - the increased number of washes it can withstand means fewer chemicals are required, making it a more sustainable option.

The outer shell fabric is only one part of a PPE garment. As PBI NRG LP is a lighter weight, it offers more potential to be combined with different membrane and liner fabrics

Quality and Finish	PBI NRG LP Repel+	
Colour	Gold	
		
Composition	40% PBI LP, 50% Para Aramid, 8% Polyamide, 2% Antistatic	
Construction	Warp Backed Gaberdine Weave	
Conditioned Weight (gsm)	190 +/- 5%	BS EN12127
Useable Width (cms)	≥ 160	BS EN 1773:1997
Tensile Strength Warp/Weft (N)	≥ 2750 / 1900	BS EN ISO 13934-1
Tensile Extension Warp/Weft (%)	≥ 14 / 6	BS EN ISO 13934-1
Tear Strength Warp/Weft (N)	≥ 116 / 130	BS EN ISO 13937-2
Washing Stability Warp / Weft (%)	≥ 3	ISO 5077 after 5 cycle to ISO 6330 (2A Pro E)
Heat Resistance 180°C (%)	< 5%	EN ISO 17493
Abrasion Resistance 12KPa 2 Broken Threads	≥ 50,000	ISO 12947-2:1999
Water Repellency	≥ 5	BS EN ISO 4920
Resistance to Penetration by Liquid Chemical O-xylene	≥ 80% Repellency	BS EN ISO 6530
After Care	Wash at 60C Tumble Dry Hot - Do not bleach	

Our Heritage & Expertise



Our History

A specialist textile company, AW Hainsworth has been an unrivalled market leader for over 230 years. From the time Abimelech William Hainsworth started manufacturing woollen cloth in Yorkshire in 1783, investing in our people and maintaining strong partnerships with customers and suppliers have been the cornerstones of our success.

Our Mill

Spring Valley Mills has been the home of the Hainsworth family business since the early 1800's. A fully vertical mill, one of the very few still remaining in the UK, we carry out every process in house, from the selection of raw wool bought from as far as Australia and New Zealand through to the finished cloth.

Our Manufacturing

Our process always starts with one thing, the selection of only the finest and highest performance fibres in the world. These fibres travel through our mill to many different departments, from blending to carding to spinning to warping to weaving to dyeing to finishing to conversion. It is a multi-step process to produce fabrics that are industry leading and well received by our many different customers.

Our Quality

Quality without compromise is one of our core values, over the last 230 years, we have developed a deep understanding of the technical world of woven textiles and how the placement of fibres can be maximised to provide the best product for each scenario.

We have a dedicated workforce who are committed to monitoring and improving product quality at each stage of the manufacturing process. As well as departmental monitoring we have a series of inspection points throughout the manufacturing process where faults can be identified and rectified.

Our Technical Credentials



A rigorous testing regime

For performance fabrics worn in the toughest conditions, claims must be supported by a rigorous and thorough testing regime, to prove compliance with international industry standards. All our protective fabrics are evaluated in our UKAS accredited laboratory, to guarantee performance, durability and consistency at all stages of the manufacturing process.

An investment in industry leading facilities

To ensure we are testing in the strictest, controlled conditions, we have invested in a new laboratory with the world's best textile testing equipment. This allows us to offer a range of tests for evaluating textile properties, including physical (tensile, tear strength, rub tests), chemical (colour fastness) and performance (wicking, drying rate).

Get in Touch

Our experienced Sales Team are on hand ready to help:



Jack Rowan

Business Development Manager
jackrowan@awhainsworth.co.uk



Martin Haworth

Technical Manager
martinhaworth@awhainsworth.co.uk

Call us: +44 (0)113 257 0391

Find us: AW Hainsworth & Sons,
Spring Valley Mills,
Stanningley,
Pudsey,
West Yorkshire,
LS28 6DW

Visit our website:

<https://www.hainsworthprotectives.co.uk/>

Find us on social media:

