

When It Counts, We've Got You Covered



Specialist Garments for Specialist Applications

## STRUCTURAL FIRE FIGHTING | COAT AND OVER-TROUSER

PRODUCT CODES : J401 Structural Jacket PBI Gold® with Gore-Tex® Airlock Moisture Barrier

T469 Structural Trousers PBI Gold® with Gore-Tex® Airlock Moisture Barrier

CERTIFIED FULLY COMPLIANT TO THE AS/NZS 4967:2009 (Amdt1-2011) STANDARD FOR PROTECTIVE CLOTHING WORN DURING STRUCTURAL FIRE FIGHTING ACTIVITIES.



**PBI Gold® 210gsm**

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### REMOVABLE LINERS

The thermal/moisture barrier and inner lining are fully removable from the outer shell which allows for greater care to be applied when it is being laundered (and conversely the outer shell can be laundered more aggressively). Both the coat and the over-trouser have design features to ensure that not just the outer shell is being worn by a fire fighter without the thermal/moisture barrier and inner liner being in place. These features are:



- **Coat** – the thermal/moisture barrier and inner liner have a small flap attached to the rear waist section that folds up to be attached to the outer shell. By attaching the flap to the outer shell, a visible identification strip on the outer shell is covered. Hence when the thermal/moisture barrier and inner liner are not in place, this identification strip is clearly visible.
- **Over-trouser** – the stud pieces that the over trouser braces attach to are affixed to the thermal/moisture barrier and inner liner. When the lining is not in place, the outer shell has no provision to attach the braces and hold the garment up.



### GARMENT LAYERS

The structural fire fighting garments have multiple layers, with each layer performing a specific function.

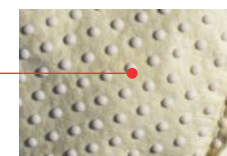
#### Layer One – The Outer Shell

The outer shell of the structural fire garments is made from PBI Gold®, a blend of 40% PBI (Polybenzimidazole) and 60% Aramid. The outer shell is the fire fighters initial barrier against hazard, therefore required to be highly flame and thermal protective, abrasion resistant as well as supple to allow for ease of movement. The outer shell also protects the inner liners from the general wear-and-tear of fire fighting activity.



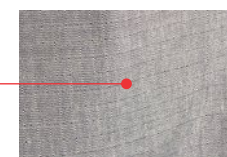
#### Layer Two – The Thermal/Moisture Barrier

The internal layer is the lightweight and flexible Gore-Tex® Airlock® that combines thermal protection with a breathable moisture barrier. The Gore-Tex® Airlock® consists of a PTFE membrane laminated to a spun-laced Aramid fabric, set onto which is a continual series of foamed silicon nodules. These nodules create a cushion of air thereby providing thermal insulation. The PTFE moisture barrier consists of an array of pores which are significantly smaller than a drop of water but larger than a molecule of water. This stops fire fighter from getting wet by preventing the penetration of water from the outside whilst at the same time allowing molecular water vapour from the wearers sweat to be moved away from the body. The moisture barrier will also resist a number of chemicals penetrating through to the wearer.



#### Layer Three – The Inner Liner

The inner liner protects the fire fighter from coming into direct contact with the thermal/moisture barrier. The garments utilise a fine yarn Nomex® Comfort fabric (93% Nomex® / 5% Kevlar® and 2% P140 anti-static carbon fibre). The use of fine yarns in this fabric leads to a superior level of softness and comfort against the skin of the fire fighter and also has a slight slick feel to it making donning and doffing easier. This fabric also has a wick finish applied to it which, as the name suggests, assists in wicking moisture away from the body.



### GETTING THE RIGHT FIT

The need for the fire fighter to be wearing the correct size of garment is critical in terms of personal protection, comfort and functionality. These new generation structural fire fighting ensembles are available in 24 different sizes, from extra-small to 4XL in short, regular and long fits.



Stewart and Heaton Clothing Co P/L (S&H) is an Australian company, manufacturing and supplying personal protective apparel/equipment to the emergency services sector. Garments manufactured by S&H are worn throughout Australia as well as exported overseas. Should you be interested in the goods and services offered by S&H, please contact your nearest S&H office, details of which can be found at our website: [www.shcc.com.au](http://www.shcc.com.au)