



The footwear protection series



FOOTWEAR PROTECTION FOR FIRE AND RESCUE PERSONNEL



A guide to the features
of Pluto NFSR1115 MK III
Pull on leather fire boot
EN ISO 15090:2012

**Improved donning,
doffing**

Improved ankle fit



KEY FACTS: PLUTO NFSR1115 MK III

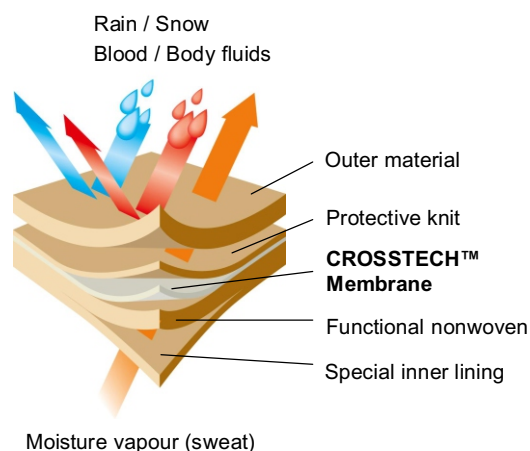
- Size range 2 - 15 (6.5, 10.5 and insert spacers for other half sizes) 35 - 50 contl. sizes
- CROSSTECH® waterproof and breathable lining
- Dual density injected rubber sole for durability and comfort
- WL GORE approved leather
- Steel toe cap and Tex protective textile midsole
- High performing slip resistant sole unit
- Cut resistant material above the sole to protect from glass
- Flex areas to the front and rear for flexibility
- Durable ridged bump cap
- Reflective tape areas
- Pull on handles with velcro
- Ankle protection
- Flame retardant thread
- 300°C heat resistance throughout the sole.
- Meets standard EN 15090:2012 F2A HI3 P T CI AN
- Meets standard EN ISO:20345:2011 S3 HRO HI CR WR SRC



Meeting the Demands of Rescue and Recovery

Protective leather boots made with CROSSTECH® fabric give firefighters superior liquid penetration and thermal protection, while reducing moisture condensation for drier, more comfortable feet.

All CROSSTECH® footwear produced in the YDS factory must meet and exceed rigorous testing to ensure quality. The footwear is flexed 300,000 times underwater to emulate 300km walking. Testing at this level is reassurance that YDS GORE-TEX® boots will perform for an extended lifetime with high abrasion resistance.



GORE Crumple and Flex tests



Sole technology

DDR

Dual Density Rubber (DDR) is a unique rubber soling formula designed for the toughest environments, and ensuring a lightweight and comfortable wear experience all day long.

DDR features:

- Tough nitrile rubber outsole with SRC slip resistance rating.
- Air injected into the rubber creates a lightweight cushioned midsole for maximum comfort and superior shock absorption.
- High durable formula outlasting PU alternatives.
- Heat resistant sole to 300°C throughout the sole.
- Injected to the uppers for good bond strength. (standard for upper/outsole bond strength dictates 4.0N/mm. Result 6.2N/MM)



Heat resistant sole to 300°C

Injected to the uppers, unlike most soles, ensuring the best bond possible.

Air injected into the rubber creates a lightweight cushioned midsole for maximum comfort and superior shock absorption

Highly durable formula outlasting PU alternatives

Tough nitrile rubber outsole with SRC slip resistance rating.

Slip resistance

The footwear is tested flat and at the heel for a measurement of slip resistance (co-efficient of friction) on ceramic tile and stainless steel treated with soap solution

Test Results:

On ceramic tiles the co-efficient of friction should be no less than:

Forepart:0.32

Heel:0.28

Result

Flat: 0.44

Heel: 0.34

On stainless steel the co-efficient of friction should be no less than:

Forepart:0.18

Heel:0.13



Result

Fore-part: 0.27

Heel: 0.20



Slip resistance tests

Cut resistance



The NFSR1115 MK III Pluto fire boot features a cut resistant area to protect from glass and other objects from puncturing or cutting through to the foot. The leather above the sole unit is reinforced with a specialist cut resistant strip running 35mm above the nipline.

35mm cut resistant strip

Ankle protection

A polycarbonate disk protects the ankle bone from impact. The level of ankle protection given is shown below



As the ankle area is susceptible to awkward forces, the Pluto NFSR1115 has a strong thermoplastic heel counter with filmic core for extra hardness and durability.

EN ISO 20345:2011 requirements:
Mean transmitted force $\leq 10\text{kN}$
max transmitted force $\leq 15\text{kN}$

Result:
mean: 8.51
max: 13.16

Midsole protection



Tex is a flexible protective midsole. It gives protection to 100% of the foot and resists penetration even by small-diameter nails. It gives maximum flexibility and comfort and resists force penetration of up to 1600N. This technology exceeds the requirements of the European standard



Goliath Footwear Ltd
Goliath House
Chain Bar Road
Cleckheaton
BD19 3QF
info@ydsboots.co.uk
www.ydsboots.co.uk