RHINO - PU/TPU CHEST WADER

TECHNICAL DATA SHEET (TDS) | PRODUCT OVERVIEW

Professional waterproof chest wader with enhanced outsole performance

RHINO PU/TPU Chest Wader combines a lightweight polyurethane (PU) boot structure with a specially engineered thermoplastic polyurethane (TPU) layer integrated into the sole area, together with a durable waterproof PVC-coated nylon upper. The PU/TPU combination is designed to provide flexibility, durability, enhanced grip and improved abrasion resistance in demanding industrial environments.



1 PRODUCT IDENTIFICATION

Brand	POLYTECH BOOT
Model	RHINO - PU/TPU Chest Wader
Construction	Polyurethane (PU) boot structure with integrated TPU sole component + PVC-coated waterproof fabric upper
Category	Occupational & Safety Chest Wader
Colour	Dark / Khaki Green only
Size Range	EU 36 - 48
Boot Standards	EN ISO 20345:2022 (S4 / S5 optional); EN ISO 20347 (O4)

2 KEY PRODUCT FEATURES

Lightweight PU Structure	Lightweight performance, flexibility and long service life
Integrated TPU Sole Component	Enhanced slip resistance, abrasion resistance and sole durability
Enhanced Traction	Improved grip on various industrial surfaces
Waterproof	Full-body waterproof coverage for demanding wet working environments
Comfortable	Flexible construction with removable antibacterial insole

3 APPLICATION AREAS

Fisheries & Aquaculture	Wet processing, fish farms and related marine work
Agriculture & Livestock	Farm, livestock and wash-down applications
Industry & Construction	Selected wet industrial and construction environments
Mining & Quarry	Wet-area and heavy-duty work subject to site risk assessment
Food Processing	Wash-down and wet processing areas
Chemical & Petrochemical	Selected applications subject to chemical compatibility and risk assessment

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MATERIAL & WADER FABRIC TECHNICAL DATA

4 MATERIAL & STRUCTURE

Component	Material	Description
Upper (Wader Fabric)	PVC-coated nylon fabric (420D / 400D x 400D)	Waterproof, durable and flexible
Boot Upper	Low Density Polyurethane	Flexible, lightweight and insulating
Boot Sole	High Density Polyurethane + integrated TPU sole component	Slip-resistant, abrasion-resistant, enhanced traction and durability
Toe Cap (S4 / S5)	Composite	200 Joule impact protection
Midsole (S5)	Kevlar	Penetration resistance
Insole	Removable, antibacterial	Ergonomic comfort
Lining (Boot Part)	PU / Textile	Moisture control

5 WADER FABRIC TECHNICAL SPECIFICATIONS

Property	Requirement	Reference Standard
Fabric Description	420D / 400D x 400D / 63 x 38; PVC coated; waterproof	Supplier specification
Colour	Dark Green	Supplier specification
Width	148 - 150 cm	Supplier specification
Thickness	0.35 mm (+/- 0.10 mm)	Supplier specification
Weight	360 gsm (+/- 5%)	Supplier specification
Colour Fastness to Rubbing	Dry: Grade 4-5 / Wet: Grade 4-5	ISO 105-X12:2016
Abrasion Resistance	Min. 50,000 rubs	ISO 12947-2:2016
Tearing Strength	Warp min. 100 N / Weft min. 100 N	ISO 13937-1:2000 + Cor.1:2004
Tensile Strength	Warp min. 300 N / Weft min. 300 N	ISO 13934-2:2014
Seam Slippage	One side < 0.5 mm / other side < 0.5 mm	ISO 13936-2:2004
Pilling Resistance	Grade 5 after 5,000 revolutions	ISO 12945-2:2000
Area Shrinkage after 90 C Washing	Warp max. 3% / Weft max. 3%	Supplier specification
Hydrostatic Pressure	Min. 0.2 bar	EN ISO 811
Hydrostatic Pressure after 90 C Washing	Min. 0.2 bar	EN ISO 811

6 COLOUR & SIZE

Available Colour	Dark / Khaki Green only
Size Range	EU 36 - 48

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BOOT SAFETY, PERFORMANCE, CARE & COMPLIANCE

7 SAFETY CLASS DIFFERENCES - BOOT PART

Feature	O4	S4	S5
Toe Protection	-	Yes	Yes
Midsole Protection	-	-	Yes
Antistatic (A)	Yes	Yes	Yes
Energy Absorption (E)	Yes	Yes	Yes
Slip Resistance (SR)	Yes	Yes	Yes
Fuel Oil Resistant (FO)	Yes	Yes	Yes
Cold Insulation (CI)	Yes	Yes	Yes
Heat Insulation (HI)	Yes	Yes	Yes

8 BOOT PERFORMANCE DATA

Temperature Resistance	-40 C
Weight (Size 42)	Approx. 1.8 - 2.0 kg / pair
Impact Resistance	200 Joule
Compression Resistance	15 kN
Electrical Resistance	Antistatic

9 PU/TPU PERFORMANCE ADVANTAGES

Enhanced Slip Resistance	TPU sole component improves grip performance
Improved Abrasion Resistance	TPU integration supports extended outsole durability
Better Traction	Designed to improve traction on various industrial surfaces
Optimized Balance	PU/TPU combination balances lightweight construction, flexibility, durability and grip
Low-Temperature Flexibility	PU structure maintains flexibility at very low temperatures and resists cracking

10 STORAGE & MAINTENANCE

Storage	Store in a dry, cool place
Sunlight	Avoid direct sunlight during storage
Cleaning	Clean after use
Heat	Do not expose to excessive heat
Inspection	Inspect fabric, seams, buckles and boots before use

11 STANDARDS & CERTIFICATION

EN ISO 20345:2022	S4 / S5 safety footwear configurations
EN ISO 20347	O4 occupational footwear configuration
EU Regulation	Regulation (EU) 2016/425
CE / PPE	CE Certified; Category II PPE