RHINO PU/TPU

TECHNICAL DATA SHEET (TDS) | PU / TPU SAFETY BOOT

Professional PU/TPU safety boot for industrial and heavy-duty environments

RHINO PU/TPU combines a lightweight polyurethane (PU) structure with a specially engineered thermoplastic polyurethane (TPU) component integrated into the sole area. The construction is designed to provide comfort, durability, protection, enhanced slip resistance and improved outsole performance.



1 PRODUCT IDENTIFICATION

Brand	POLYTECH BOOT
Model	RHINO PU/TPU
Construction	Double Density Polyurethane (PU/PU) with integrated TPU sole component
Category	Safety Footwear
Safety Standard	EN ISO 20345:2022 - S4 / S5 optional
Occupational Standard	EN ISO 20347 - O4
Size Range	EU 36 - 48

2 PRODUCT DESCRIPTION

PU Structure	Lightweight performance, high durability, excellent flexibility and long service life
TPU Sole Component	Enhanced slip resistance, improved abrasion resistance and increased sole durability
Traction	Better traction on various industrial surfaces
Working Conditions	Additional protection and performance in demanding working environments
PU/TPU Balance	Optimized combination of lightweight construction, flexibility, durability and enhanced grip performance

3 KEY ADVANTAGES

Lightweight Construction	30-40% lighter than conventional PVC/rubber boots, as stated in the source TDS
Long Lifespan	PU/TPU technology supports extended service life
High Comfort	Ergonomic design for prolonged professional use
Superior Slip Resistance	Enhanced outsole performance through the TPU component

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MATERIAL, TECHNICAL & PERFORMANCE DATA

4 MATERIAL SPECIFICATIONS

Component	Material	Description
Upper	Low Density Polyurethane	Flexible, lightweight, insulating
Sole	High Density Polyurethane + TPU component	Slip-resistant, abrasion-resistant; enhanced outsole performance
Toe Cap	Composite	Impact protection - 200 Joule
Midsole	Kevlar	Penetration protection
Insole	Removable, antibacterial	Ergonomic comfort
Lining	PU / Textile	Moisture control

5 TECHNICAL FEATURES

Antistatic (A)	Helps control electrostatic discharge
Energy Absorption (E)	Energy absorption performance
Fuel Oil Resistant Outsole (FO)	Resistance to fuel oil
Slip Resistance (SR)	Enhanced grip on slippery working surfaces
Cold Insulation (CI)	Insulation for low-temperature working conditions
Heat Insulation (HI)	Insulation for demanding temperature conditions
Waterproof Construction	Protection against water penetration

6 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

Low-temperature performance: The source TDS states that the PU structure maintains flexibility even at very low temperatures and resists cracking.

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COLOR OPTIONS, APPLICATIONS, CERTIFICATION & CARE

7 COLOR VARIANTS



Code	Upper	Sole
RH-01	Khaki Green	Black
RH-02	Black	Black
RH-03	White	Blue
RH-04	Blue	Black
RH-05	Yellow	Black
RH-06	Orange	Black
RH-07	Blue	Blue

8 APPLICATION AREAS

Agriculture & Livestock	Suitable
Construction & Industry	Suitable
Mining & Quarry	Suitable
Food Processing	Suitable
Chemical & Petrochemical	Suitable
Fisheries	Suitable

9 STANDARDS & CERTIFICATION

EN ISO 20345	Safety Footwear - S4 / S5
EN ISO 20347	Occupational Footwear - O4
EU Regulation	Regulation (EU) 2016/425
CE	CE Certified
PPE Category	Category II

10 STORAGE & MAINTENANCE

Storage	Store in a dry, cool place
Sunlight	Avoid direct sunlight
Cleaning	Clean after use
Heat	Do not expose to excessive heat