



# M-8581 EH 18 kV

## Di-electric Work Boots (100% Metal Free)

Upper : Full Grain Cow Nubuck Leather+Oxford Fabric

Lining : BactiVoid™ Breathable Sandwich Mesh

Insole : Anti-fatigue Memory Foam Insoles

Outsole : QuantumHold™ PU/Nitrile Rubber Injection

Toecap : VortiGard™ Composite Toecap

Penetration : VortiGard™ Kevlar Midsole Plate

Size : EU 37-47#, UK 3-13#, US4-14#

CE EN ISO 20345:2022+A1:2024 SBP FO SR CI HI HRO / ASTM F2413-18 M I/75 C/75 PR EH

ASTM E 2149-2020 Approved Anti-microbial Lining & Insoles (Odor Resistant)

Application : Electrical Power Industry, Electric Equipment Maintenance, Construction & Civil Engineering etc



200 JOULE  
TOECAP



SLIP-  
RESISTANT



SHOCK  
ABSORPTION



ELECTRIC  
HAZARD 18KV



ANTI-NAIL  
MIDSOLE



PETROL AND  
CHEMICAL  
RESISTANT



WATER  
RESISTANT

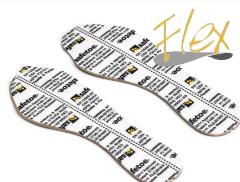


OIL  
RESISTANT



### VortiGard™ Composite Toe Cap • EN ISO 20345:2022

Composite Toe Cap is light-weight and non-magnetic. The impact resistance can reach 200 joules from falling or rolling objects. The compression resistance can reach 15kN.



### VortiGard™ Kevlar Plate Protection • EN ISO 20345:2022

Kevlar midsole plate is flexible and non-metallic. The penetration resistance can reach 1100 newtons from nail or other sharp objects. The flex resistance can reach to  $1 \times 10^6$  flexion cycles without visible cracking.



### LeatherQua™ Cow Leather Upper • EN ISO 20345:2022

High quality full grain smooth cow leather with thickness 1.6-1.8mm. It is treated with water resistant coating to protect feet from raining workday. The tear strength of upper leather can reach to 120 Newtons.

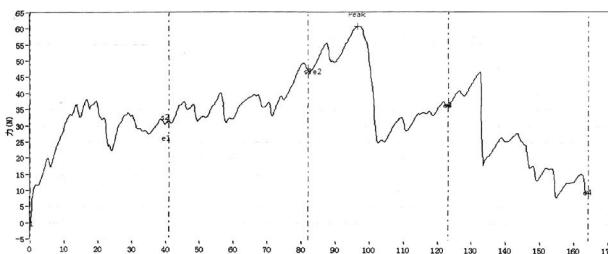


### QuantumHold™ PU/Rubber Outsole • EN ISO 20345:2022

PU/Rubber outsoles are manufactured with Germany Fully Automatic Injection Technology. The midsole is  $45 \pm 5$  degree hardness PU, which is soft and shock absorption. The outsole is natural rubber with 5%-10% nitrile, which is abrasion resistant, slip resistant, oil resistant and heat resistant.

## Sole Bonding Strength Test

- EN ISO 20345:2022, 5.3 (Between Upper & Sole)
- Average Test Result  $5.8 \pm 5$  (N/mm)



### Upper, Lining & Bonding Strength Test Result

Leather Tear Strength $\geq$	120.0 Newtons
Leather Tensile Properties $\geq$	15.0 N/mm <sup>2</sup>
Lining Tear Strength $\geq$	15.0 N/mm
Bonding Strength $\geq$	4.0 N/mm

✓ Protection With Slip Resistant (SR)	Result
Test Requirement : Forward Heel Slip $\geq 0.31$ ( Test method L ISO 13287:2019) Backward Forepart Slip $\geq 0.36$ ( Test method L ISO 13287:2019)	PASS
Standards : EN ISO 20345:2022(5.3.5) , Test floor: Ceramic tile, Lubricant: Sodium lauryl sulphate	
✓ Protection Against Electric Hazard (EH 18KV)	Result
Test Requirement : Test Voltage 18KV, Test Period 1 Minute, Leakage Current $\leq 1.0\text{mA}$	PASS
Standards : ASTM F2412-18a, Clause 9	
✓ Protection Resistant to Fuel Oil (FO)	Result
Test Requirement : Change in Volume and Change in Hardness (Outsole) is No More Than $+12\% (*)$	PASS
Standards : EN ISO 20345:2022 (6.4.2)	
SAFETOE Standard Package Instruction (Average 42# for Reference)	
Shoes Weight : 1.2-1.3 KGS / Pair	Carton Weight : 13-14 KGS / Carton
1 Pair / Color Box , Dimensions : 32×24×12CM	10 Pair / Carton , Dimensions : 62×49×33CM



### User Instructions:

- RECOMMENDED TO USE : Electrical Power Industry, Electric Equipment Maintenance, Construction & Civil Engineering etc.
- LIMITATION TO USE: It is very important that footwear selected must be suitable for the right workplaces. The protection against risks or hazards which are not mentioned in this document is not warranted.
- FITTING & SIZE: All footwear are marked with standard size on tongue label. Some are with different size comparation, such as EU size, UK size, US size etc. Please wear footwear in a suitable size.

Footwear which are too loose or too tight may not provide optimum level of protection.

4.) STORAGE: Keep the footwear in its original packaging, under ordinary temperature, non-humidity conditions and in clean, covered and ventilated premises.

5.) CLEANING: Clean footwear regularly by high quality cleaning treatments recommended as suitable for the purpose. Don't use caustic or corrosive cleaning agents.