



**FLOW** SB FO E PL CI WPA SR  
CE EN ISO 20345:2022 SB FO E PL CI WPA SR

3R022E

**LOW SAFETY SHOE**

36-47

**DIELECTRIC** Sole line

Low safety shoe, suede back leather and WPA anti-scratch leather thickness 1,8-2,0 mm.

Perspiring and abrasion resistant fabric lining.

Soft, lined and padded tongue.

**COMPLETELY METAL FREE SHOE**

**TOECAP 200J** polymeric composite **non-thermic** according to EN 22568

**PL certified antiperforation dielectric composite fabric** according to EN 22568

**SOLE 3 RUN** three-densities polyurethane dielectric, to hydrocarbons and to abrasion, anti-shock and anti-slipping

Article 3R022E has been tested using a method analogous to ASTM F2413-18 (EH) and CSA Z195-14: determination of resistance to an electric shock, increase 1 kV/sec, voltage 20,000 V/60 Hz holding the voltage for 1 minute. Electrical current requirement below 1.0 mA.

The outsole of the footwear, within specific limits (in the absence of moisture, not referring to the upper), was tested using a method analogous to EN ISO 20345:2022 to provide electrical insulation against voltages up to 1000 V M ohm >1000.

(Test report No. 4314043.01/E)

**ANTI TORSION** insert in the sole to assure stability on uneven ground

**DIELECTRIC INSOLE**, extracomfort bimaterial with activated carbon, removable, anatomic, absorbing, antistatic, perspiring insulating and antibacterial.

Eco-Friendly

**FO** sole resistance to hydrocarbons

**E** energy absorption on seat region

**PL** antiperforation midsole

**CI** cold insulation of sole complex -17°C

**SR** Slip resistance

**THIS PRODUCT COMPLIES WITH THE REQUIREMENTS OF THE STANDARD ASTM F2413-24:**

- Impact resistant footwear (I)
- Compression resistant footwear (C)
- Puncture Resistant Footwear (PR)
- Electric Hazard Resistant Footwear (EH)
- Slip Resistance (SRO)

**Size 36-47 Shoe weight Sz 42 gr 550**

*\* The calculated weight excludes laces and insoles.*

↪ **AREAS OF APPLICATION**

 Cold Environments

 Electrician

↪ **CERTIFICATIONS APPLIED**


 **Water Penetration and Absorption (WPA)**

 **ASTM F2413-24**

 **Insulation up to 20,000V**


 **PL Puncture Resistance with Non-Metallic Insert (nail Ø 4.5mm)**

 **Heel Energy Absorption**

 **Slip Resistance (mandatory ceramic-Nals test)**

 **Hydrocarbon Resistance**

↪ **TECHNOLOGIES AND MATERIALS**

 **No metal**

 **Extreme Lightness**

 **Three to be™ - Triple Density Injection**

 **Metal-Free**

 **Cold Insulating Outsole**

 **Anti-Torsion Sole**

 **Mondo Point 11**

 **Slip Resistance (optional glycerin test)**



### Three to be™ - Triple Density Injection

Three to Be® - Tripla Densità Iniettata technology represents one of the most advanced results of our R&D efforts. Patented by Giasco, it integrates three entirely polyurethane-injected sole layers to optimize safety shoe performance in terms of comfort, stability, and slip resistance.



### Anti-Torsion Sole

The Anti Torsion system uses a thermoplastic shank designed to increase stability on irregular and wet surfaces. Unlike standard shanks, it flexes with the foot's natural motion, reducing the risk of twists and falls. Ideal for outdoor work, especially in construction, where surface control is critical.

## DIELECTRIC Sole line

Dielectric sole line was developed to meet the needs of those working in contact with electrical cables and systems. Specifically, this line offers a safety shoe with an insulating sole that provides specific protection against the risk of electric shock.

This is made possible by a series of insulating materials specifically designed for this purpose: the nitrile rubber compound of the outsole, the polyurethane foam of the midsole, the fabrics of the puncture-resistant insole, and the compound of the internal footbed.

These technologies enabled the shoes to pass electrical resistance tests in accordance with the analogous method of the EN ISO 20344:2021 standard and ASTM F2413 (EH) / CSA Z195-14 at 20 kV/60 Hz.

In addition, the specific materials used in the sole construction allowed the product to obtain the important American certification ASTM 2413-24 EH (Electric Hazard Resistant Footwear).

