



|                         |                  |
|-------------------------|------------------|
| <b>Prod. Ref.</b>       | NG040-000        |
| <b>Safety cat.</b>      | S3S FO SR        |
| <b>Range of sizes</b>   | 36 - 48 (3 - 13) |
| <b>Weight</b> (sz. 8)   | 520 g            |
| <b>Shape</b>            | A                |
| <b>Widht</b> (3 - 6)    | 10,5             |
| <b>Widht</b> (6,5 - 13) | 11               |

**Description:** Black water repellent microfiber shoe, **SANY-DRY**<sup>®</sup> lining, anti-shock, slipping resistant, with non-woven fabric puncture resistant **FTP Plate** insole - non metallic type **PS** with Ø 3,0 mm nail.

**Plus: 100% METAL FREE.** High electrical conductivity. Stability of the conductive capability for extended period. **LIGHT FOAM ESD** footbed, with low electrical resistance, made of extremely soft and comfortable polyurethane foam. Punched, its anatomical shape provides support to the plantar arch; covered with abrasion resistant fabric, it absorbs moisture and keeps always the foot dry; it guarantees excellent comfort and shock absorption. Dynamic sole design with crosswise grooves along the shape, actively responding to impact by enhancing compression and elastic energy return during each step.

**Suggested uses:** Footwear for microelectronic industries. Recommendable in **ATEX** environments

**Care and maintenance:** Clean after each use and dry off away from direct heat; treat the leather with a suitable shoe-polish. Avoid contact with aggressive chemicals or extreme temperature. Avoid immersion in sea water, lime water or cement mixed with water

**Recommendation:** It is always necessary to wear socks made of natural fibers i.e. wool or cotton, because they provide the best performance with electrical conductivity. Avoid introducing any foreign body between foot and footbed of the footwear (i.e. insoles or similar items not equipped by the manufacturer), as they could make void the electrical properties the footwear have been conceived for. Do not undervalue the effect of ageing and contamination of the footwear: during time their electrical resistance can be subjected to alterations. It is always important to check the electrical properties of footwear through the use of special testing devices in electrostatic protected area (EPA), according to the European standard CEI EN 61340-5-1

### MATERIALS / ACCESSORIES

### SAFETY TECHNICAL SPECIFICATIONS

|                      |                                                                                                                                                            | Clause<br>EN ISO<br>20345:2022+<br>A1:2024 | Description                                                   | Unit            | Cofra<br>result | Requirement |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------|-----------------|-----------------|-------------|
| <b>Complete shoe</b> | E.S.D. features (provisional tests)                                                                                                                        | CEI EN                                     |                                                               |                 |                 |             |
|                      |                                                                                                                                                            | 61340-5-1                                  | Electric resistance of footwear to floor                      | MΩ              | 41,1            | < 1000      |
|                      |                                                                                                                                                            | 61340-5-1                                  | Cross resistance                                              | MΩ              | 21,20           | ≤ 100       |
|                      |                                                                                                                                                            | 61340-5-1                                  | Charge ability                                                | V               | 23,20           | < 100       |
|                      |                                                                                                                                                            | 5.3.2.6                                    | Shock resistance (clearance after shock)                      | mm              | 14,5            | ≥ 14        |
|                      |                                                                                                                                                            | 5.3.2.7                                    | Compression resistance (clearance after compression)          | mm              | 15,5            | ≥ 14        |
|                      |                                                                                                                                                            | 6.2.1.1.4                                  | Penetration resistance<br>(PS requirement with Ø 3,0 mm nail) | N               | 1227            | ≥ 1100      |
|                      |                                                                                                                                                            | 6.2.4                                      | Shock absorption                                              | J               | 26              | ≥ 20        |
|                      |                                                                                                                                                            | 5.4.6                                      | Water vapour permeability                                     | mg/cmq h        | > 9,3           | ≥ 0,8       |
|                      |                                                                                                                                                            |                                            | Permeability coefficient                                      | mg/cmq          | > 75,8          | ≥ 15        |
| <b>Upper</b>         | Black water repellent microfiber<br>Thickness 1,6 mm                                                                                                       | 6.3                                        | Water absorption                                              |                 | 27,9%           | ≤ 30%       |
|                      |                                                                                                                                                            |                                            | Water penetration                                             |                 | 0,16 g          | ≤ 0,2 g     |
| <b>Vamp</b>          | Textile, breathable, abrasion resistant, colour black<br>Thickness 1,2 mm                                                                                  | 5.5.4                                      | Water vapour permeability                                     | mg/cmq h        | > 84,7          | ≥ 2         |
|                      |                                                                                                                                                            |                                            | Permeability coefficient                                      | mg/cmq          | > 677,4         | ≥ 20        |
| <b>Quarter</b>       | <b>SANY-DRY</b> <sup>®</sup> , breathable, abrasion resistant, colour green<br>thickness 1,2 mm                                                            | 5.5.4                                      | Water vapour permeability                                     | mg/cmq h        | > 22            | ≥ 2         |
|                      |                                                                                                                                                            |                                            | Permeability coefficient                                      | mg/cmq          | > 177,9         | ≥ 20        |
| <b>Sole</b>          | Double-density polyurethane, with low electrical resistance, directly injected in the upper:<br>Outsole: green, high density, slipping resistant, abrasion | 5.8.4                                      | Abrasion resistance (lost volume)                             | mm <sup>3</sup> | 111             | ≤ 150       |
|                      |                                                                                                                                                            | 5.8.5                                      | Flexing resistance (cut increase)                             | mm              | 1,5             | ≤ 4         |

Midsole: black, low density, comfortable and anti-shock

Adherence coefficient of the sole (Slip resistance)

|         |                                                            |      |             |        |
|---------|------------------------------------------------------------|------|-------------|--------|
| 5.8.7   | Interlayer bond strength                                   | N/mm | <b>4,5</b>  | ≥ 3    |
| 6.4.2   | Hydrocarbons resistance ( $\Delta V$ = volume increase)    | %    | <b>6</b>    | ≤ 12   |
| 5.3.5.2 | ceramic + detergent solution – forepart (contact angle 7°) |      | <b>0,38</b> | ≥ 0,36 |
|         | ceramic + detergent solution – heel (contact angle 7°)     |      | <b>0,35</b> | ≥ 0,31 |
| 6.2.10  | SR : ceramic + glycerol – forepart (contact angle 7°)      |      | <b>0,29</b> | ≥ 0,22 |
|         | SR : ceramic + glycerol – heel (contact angle 7°)          |      | <b>0,28</b> | ≥ 0,19 |