



EN ISO 20345:2022

Class: S3S FO SR  
 Sizes: 38-47  
 Instep: 12  
 Weight (±10%): **540,5 gr.** (\*)

## TECHNICAL SHEET ART. POLO

**Description:** low shoe in SAFETY-NUBUCK, with HIGH-TEX inserts, 100% polyester lining, non-metallic HRP Insole, SPORT-LITE insole, anatomic, antistatic, antibacterial and ESD, double density polyurethane sole, bending resistant, abrasion resistant, oil resistant, slip resistant, ESD  
**Suggested sectors of usage:** Building / Construction, Electronics / Electrotechnics, Mechanical industry, Servicing, Logistics / Packaging, Professionals / Craftsmen  
**Care and Maintenance:** clean periodically the outsole and the upper with non-aggressive substances which could compromise quality, safety and durability of the shoe, do not dry close to direct heat source.



| Complete shoe                                                                                                                   | Norm             | Description                               | Unit                   | Results  | EN ISO 20345 requirements |
|---------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------|------------------------|----------|---------------------------|
| <b>Toe Cap:</b> non-metallic toe cap THIN CAP, impact resistant 200 J                                                           | 5.3.2.6          | Impact resistance                         | mm                     | 15       | ≥ 14                      |
|                                                                                                                                 | 5.3.2.7          | Compression resistance                    | mm                     | 17,5     | ≥ 14                      |
| <b>Midsole:</b> non-metallic HRP Insole with high tenacity fibres multi layers, polyester composition, perforation resistant    | 6.2.1            | Perforation resistance (single value)     | N                      | 1.032    | ≥ 950                     |
|                                                                                                                                 |                  | Average value                             |                        | 1.224    | ≥ 1.100                   |
| <b>ESD footwear:</b> dissipation capacity of the electrostatic charge                                                           | EN ISO 61340-5-1 | Electrical resistance for ESD footwear    | Mohm                   | 44       | ≤ 100                     |
| <b>Capacity of Energy Absorption in the heel area</b>                                                                           | 6.2.4            | Energy absorption in the heel area        | J                      | 29,5     | ≥ 20                      |
| <b>Upper:</b> SAFETY-NUBUCK, HIGH-TEX inserts, blue color + light blue color                                                    | 5.4.6            | Water vapour permeability                 | mg/cm <sup>2</sup> · h | 48,5     | ≥ 0,8                     |
|                                                                                                                                 |                  | Water vapour coefficient                  | mg/cm <sup>2</sup>     | 388,2    | ≥ 15                      |
|                                                                                                                                 | 5.4.3            | Tear strength                             | N                      | 189      | ≥ 60                      |
| <b>Vamp/Quarter Lining:</b> honeycomb 100% finished polyester, breathable, abrasion resistant, black colour + light blue colour | 5.5.4            | Water vapour permeability                 | mg/cm <sup>2</sup> · h | 132,3    | ≥ 2                       |
|                                                                                                                                 |                  | Water vapour coefficient                  | mg/cm <sup>2</sup>     | 1058,7   | ≥ 20                      |
|                                                                                                                                 | 5.5.2            | Tear strength                             | N                      | 43,5     | ≥ 15                      |
|                                                                                                                                 | 5.5.3            | Abrasion resistance (dry)                 | cycles                 | no holes | 25.600                    |
|                                                                                                                                 |                  | Abrasion resistance (wet)                 | cycles                 | no holes | 12.800                    |
| <b>Sole:</b> double density polyurethane sole, bending resistant, abrasion resistant, oil resistant, slip resistant, ESD        | 5.8.3            | Tear strength                             | kN/m                   | 7,2      | ≥ 8                       |
|                                                                                                                                 | 5.8.4            | Abrasion resistance (black)               | mm <sup>3</sup>        | 60       | ≤ 150                     |
|                                                                                                                                 | 5.8.5            | Bending resistance                        | mm                     | 0        | ≤ 4                       |
|                                                                                                                                 | 5.8.6            | Hydrolysis                                | mm                     | 0        | ≤ 6                       |
|                                                                                                                                 | 6.4.2            | Hydrocarbons resistance (volume increase) | %                      | 3,2%     | ≤ 12%                     |
|                                                                                                                                 | 6.2.10           | Slip resistance on ceramic glycerine (SR) | heel forward (7°)      | 0,22     | ≥ 0,19                    |
|                                                                                                                                 |                  |                                           | tip back (7°)          | 0,23     | ≥ 0,22                    |

In model POLO and its components there is no presence of dangerous substances by Annex XVII to regulation no. 1907/2006/CE and subsequent amendments and additions

(\*) = Indicative weight that refers to ½ pair in size 42