



EN ISO 20345:2022

Class: S3S FO SR  
 ESD  
 Sizes: 34-48  
 Available in stock only sizes:  
 35-48  
 Instep: 12  
 Weight ( $\pm 10\%$ ): **589 gr.** (\*)

## TECHNICAL SHEET ART. BOXING

**Description:** high shoe in waxy black full grain TOP LEATHER with padded storm-cuff, 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

**Plus:** ESD

**Suggested sectors of usage:** Mechanical industry, Building / Construction, 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 THIN CAP, impact resistant 200 J  | 5.3.2.6          | Impact resistance                         | mm                     | 14,5     | $\geq 14$                 |
|  | 5.3.2.7          | Compression resistance                    | mm                     | 16,5     | $\geq 14$                 |
| <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                      | 1.605    | $\geq 950$                |
|  |                  | Average value                             |                        | 1.501    | $\geq 1.100$              |
| <b>Insole:</b> SPORT-LITE, anatomic, antistatic, antibacterial and ESD   | 5.7.3            | Water absorption                          | mg/cm <sup>2</sup>     | 103      | $\geq 70$                 |
|  |                  | Water desorption                          |                        | 100%     | $\geq 80\%$               |
| <b>ESD footwear:</b> dissipation capacity of the electrostatic charge  | EN ISO 61340-5-1 | Electrical resistance for ESD footwear    | Mohm                   | 93,6     | $< 100$                   |
| <b>Capacity of Energy Absorption in the heel area</b>  | 6.2.4            | Energy absorption in the heel area        | J                      | 28       | $\geq 20$                 |
| <b>Upper:</b> waxy black full grain TOP LEATHER with padded storm-cuff, black color  | 5.4.3            | Water vapour coefficient                  | mg/cm <sup>2</sup> · h | 53,5     | $\geq 15$                 |
|  | 5.4.6            | Water vapour permeability                 | mg/cm <sup>2</sup>     | 6,1      | $\geq 0,8$                |
|  |                  | Tear strength                             | N                      | 230      | $\geq 120$                |
| <b>Vamp/Quarter Lining:</b> honeycomb 100% finished polyester, breathable, abrasion resistant                                | 5.5.4            | Water vapour permeability                 | mg/cm <sup>2</sup> · h | 99,9     | $\geq 2$                  |
|  |                  | Water vapour coefficient                  | mg/cm <sup>2</sup>     | 799      | $\geq 20$                 |
|  | 5.5.2            | Tear strength                             | N                      | 46       | $\geq 15$                 |
|  | 5.5.3            | Abrasion resistance (dry)                 | cycles                 | no holes | 25.600                    |
| <b>Sole:</b> double density polyurethane, bending resistant, abrasion resistant, oil resistant, slip resistant, ESD          |                  | Abrasion resistance (wet)                 | cycles                 | no holes | 12.800                    |
|  | 5.8.3            | Tear strength                             | kN/m                   | 18,8     | $\geq 8$                  |
|  | 5.8.4            | Abrasion resistance (black)               | mm <sup>3</sup>        | 39       | $\leq 150$                |
|  | 5.8.5            | Bending resistance                        | mm                     | 0        | $\leq 4$                  |
|  | 5.8.6            | Hydrolysis                                | mm                     | 0        | $\leq 6$                  |
|  | 6.4.2            | Hydrocarbons resistance (volume increase) | %                      | 2,9%     | $\leq 12\%$               |
|  | 6.2.10           | Slip resistance on ceramic glycerine (SR) | heel forward 7°        | 0,28     | $\geq 0,19$               |
|  |                  |   | tip back 7°            | 0,24     | $\geq 0,22$               |

In model BOXING 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 1/2 pair in size 42