

TECHNICAL SHEET



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|---------------------------|---|
| Article: | B1000 K-ROAD |
| Norm: | UNI EN ISO 20345:2012 |
| Safety Class: | S3 CI HRO SRC |
| Footwear height: | Mod. A, H 87 mm (< 113 mm; Rif. EN 20345-5.2.2) |
| Width: | 12 |
| Construction: | STROBEL; CEMENTED DUAL DENSITY - PU/GUMMI |
| Cleaning and maintenance: | Use only soft brushes and water. Do not use substances like alcohol, thinners, gasoline, oil or any other chemicals. Keep the footwear, dry and clean, in a proper place at room temperature. |
| Suggested fields: | Construction, heavy industry, light industry, shipbuilding, big plants, handicraft, agriculture, miner, extractive |

| Entire footwear: components | | | | | |
|-----------------------------|-------------------------------------|--------------------------------|---|---|---------|
| Component | Description | Value | Norm Requirements | EN 20345 | |
| Aluminium toe-cap | Impact resistance (200 J) | 15 mm | ≥ 14 mm | 5.3.2.3 | |
| | • Free height after impact | | | | |
| | Compression resistance (15 kN) | 16 mm | ≥ 14 mm | 5.3.2.4 | |
| | • Free height after compression | | | | |
| Sole (SRC) | Slip resistance | | | | |
| | • SRA – sole (entire sole) | 0,36 | ≥ 0,32 | 5.3.5.4 | |
| | • SRA – heel (angle of 7°) | 0,31 | ≥ 0,28 | 5.3.5.4 | |
| | • SRB – sole (entire sole) | 0,20 | ≥ 0,18 | 5.3.5.4 | |
| | • SRB – heel (angle of 7°) | 0,22 | ≥ 0,13 | 5.3.5.4 | |
| Fresh'n Flex (P) | Puncture resistance | No perforation | ≥ 1100 N | 6.2.1 | |
| Footbed (A) | Antistatic properties | Electrical resistance | | | |
| | | | dry 7,25 x 10 ⁸ Ω | ≥ 10 ⁵ Ω , ≤ 10 ⁹ Ω | 6.2.2.2 |
| | | humid 1,38 x 10 ⁸ Ω | ≥ 10 ⁵ Ω , ≤ 10 ⁹ Ω | 6.2.2.2 | |
| Sole/upper | Thermal insulation | | | | |
| | Heat (HI) | • Insole temperature increase | N/A | ≤ 22°C | 6.2.3.1 |
| | Cold (CI) | • Insole temperature release | 6°C | ≤ 10°C | 6.2.3.2 |
| Heel (E) | Shock-absorption in the heel region | 30 J | ≥ 20 J | 6.2.4 | |
| (WR) | Water resistance (water absorption) | N/A | ≤ 3 cm ² wetted area after 4800 cycles | 6.2.5 | |
| (M) | Metatarsal protection | N/A | ≥ 40 mm | 6.2.6 | |

| Upper | | | | |
|----------------|---------------------------|---------------------------|----------------------------|----------|
| Component | Description | Value | Norm requirements | EN 20345 |
| | Tear resistance | 152 N | ≥ 60 N | 5.4.3 |
| | Traction resistance | N/A | ≥ 15 N/mm ² | 5.4.4 |
| Nabuck leather | Water stream permeability | 11,3 mg/cm ² h | ≥ 0,8 mg/cm ² h | 5.4.6 |
| | pH value | 3,85 | ≥ 3,2 | 5.4.7 |
| | Chromium VI | N/A | Not detectable | 5.4.9 |
| | Water passed | N/A | ≤ 0.2 g | 6.3 |
| | Water absorption | N/A | ≤ 30% | 6.3 |
| | | | | |

| Lining | | | | |
|-------------------|----------------------|--|-----------------------------|----------|
| Component | Description | Value | Norm Requirements | EN 20345 |
| 3D hi-tech Fabric | Tear Resistance | 45 N | ≥ 15 N | 5.5.1 |
| | Abrasion resistance | <ul style="list-style-type: none"> Dry: the surface shows no holes Humid: the surface shows no holes | No holes till 51.200 cycles | 5.5.2 |
| | Water stream release | 21,0 mg/cm ² h | ≥ 2,0 mg/cm ² h | 5.5.3 |
| | pH value | N/A | Not detectable | 5.5.4 |
| | Chromium VI | N/A | Not detectable | 5.5.5 |

| Insole | | | | |
|--------------|--|-----------------------|-----------------------------|----------|
| Component | Description | Value | Norm requirements | EN 20345 |
| Fresh'n Flex | Thickness | 3,7 mm | ≥ 2,0 mm | 5.7.1 |
| | pH value | N/A | Not detectable | 5.7.2 |
| | Water absorption | 82 mg/cm ² | ≥ 70 mg/cm ² | 5.7.3 |
| | Water release | 90 % | ≥ 80 % | 5.7.3 |
| | Abrasion resistance (after 400 cycles) | No damage | Damage ≤ to norms reference | 5.7.4.1 |
| | Chromium VI | N/A | Not detectable | 5.7.5 |

| Removable footbed | | | | |
|--|---------------------|---|--|----------|
| Component | Description | Value | Norm requirements | EN 20345 |
| Breathable technical textile and expanded polymer material | Thickness | 3,5 ± 0,5 mm (tip) 9 ± 0,5 mm (heel) | N/A | 5.7.1 |
| | pH value | N/A | Not detectable | 5.7.2 |
| | Water absorption | Permeable through the holes | Permeable or ≥ 70mg/cm ² | 5.7.3 |
| | Water release | Permeable through the holes | Permeable or ≥ 80% | 5.7.3 |
| | Abrasion resistance | No damage | Dry: no holes till 25600 cycles humid: no holes till 12800 | 5.7.4.2 |
| | Chromium VI | N/A | Not detectable | 5.7.5 |

| Sole | | | | | |
|------------------------------|---------------------------------------|--|---|-----------------------|-------|
| Component | Description | Value | Norm requirements | EN 20345 | |
| Midsole PU; Outsole GUMMI | Sole thickness without profile | 8 mm | ≥ 4 mm | 5.8.1.1 | |
| | Profile height | 3,5 mm | ≥ 2,5mm | 5.8.1.3 | |
| | Tear resistance | 8,6 kN/m | ≥ 8 kN/m | 5.8.2 | |
| | Abrasion resistance | <ul style="list-style-type: none"> Relative volume loss | 130 mm ³ | ≤ 250 mm ³ | 5.8.3 |
| | Flexion resistance | <ul style="list-style-type: none"> Notches increase after 30.000 cycles | 2,2 mm | ≤ 4 mm | 5.8.4 |
| | Hydrolysis | <ul style="list-style-type: none"> Notches increase after 150.00 cycles | 3,2 mm | ≤ 6mm | 5.8.5 |
| | Sole thickness without profile | 4,6 N/mm (*) | ≤ 4 N/mm; (*) ≤ 3 N/mm with sole ripping | 5.8.6 | |
| | (HRO) (Contact heat resistance 300°C) | No damage | No damage (melting, breaking) | 6.4.1 | |
| | (FO) Fuel resistance (volume changes) | 4,6 % | ≤ 12% | 6.4.2 | |

Date: 25/10/2017

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