TECHNICAL DATA SHEET

HORIZON Low ESD S3 No. 727821 Sz. 36 - 48







LABELLING ACCORDING TO STANDARD

Standard for safety footwear EN ISO 20345 S3	Basic requirement for S3: **A** Antistatic shoe - **E** Energy absorption in the heel - **FO** Fuel resistance - **WRU** Water penetration and water absorption resistant upper - **P** Penetration resistance - Closed heel area - Profiled outsole
Additional requirements	**SRC** Slip resistance: Slip resistant on floors of ceramic tiles with a sodium lauryl sulfate (SLS) solution and on steel floors with glycerol. When it comes to slip resistance as defined by EN ISO 20345, SRC signifies the best possible rating a safety shoe can reach.

FORM

Safety shoe 	Form A - in size 42, the upper height must not exceed 11.2 cm.

AREAS OF APPLICATION

Areas of application	Indoors and outdoors Areas where exposure to moisture is expected (S2) Areas where there is a risk of penetration from pointed and sharp objects (S3) Areas where there is a risk of electrostatic discharge (ESDS/ESD) Workplaces on hard and smooth industrial floors: Ergonomic pivot points and improved torsion provide for additional grip and flexibility.

FEATURES

ESD equipment	Thanks to its excellent discharge capability, the shoe is suitable for work in ESD sensitive or electrostatically protected areas (EPA). The shoes comply to the standard 61340-5-1.
Sizes (unisex model)	• Expanded size range: available in sizes 36 - 48

FEATURES	
Certification in accordance with DGUV rule 112-191	• Certified for orthopaedic modifications / inserts
Padded upper edge	• Excellent wearing comfort: the padded upper edge protects the Achilles tendon.
Full, padded bellows tongue	• Excellent wearing comfort: The tongue prevents pressure marks and avoids dirt from entering into the shoe.
Abrasion-resistant toe protection	• Directly applied to the upper in the shoe tip area • Excellent wear protection in the shoe tip area • Protects the upper in this critical area against premature wear
Ergonomic Product IGR certification	The IGR quality seal (Interessengemeinschaft der Rückenschullehrer/-innen e.V. / Association of back specialists) confirms the highly praised features and practical functionality of the tested products. The IGR certification attests the degree of the product's customisability to the physical characteristics of the test person. In accordance with DIN 33419 / EN ISO 15537, the product's usability and ergonomics were tested. Products recommended by IGR e.V. bear the title "Ergonomic Product".
UPPER MATERIAL	
Hydrophobized microfibre	• Areas of application S2/S3 • Synthetic material • Particularly soft • Retains its shape • Tear-resistant • Dries quickly • Abrasion-resistant and light • Water penetration and absorption in accordance with EN ISO 20345 S2; an improved resistance against water penetration is achieved by a special hydrophobation of the material
Textile material Cordura® (hydrophobized) CORDURA®	• Areas of application S2/S3 • Synthetic material • Particularly resistant to wear and tear • Retains its shape • Tear-resistant • Dries quickly • Abrasion-resistant and light • Water penetration and absorption in accordance with EN ISO 20345 S2; an improved resistance against water penetration is achieved by a special hydrophobation of the material
LINING	
Breathable fabric lining	• Climate-regulating • Good ventilation • Skin-friendly • High absorption and emission of moisture
Heel pocket lining	• The abrasion-resistant microfibre material is particularly sturdy and provides for a pleasant wearing comfort.

TOE PROTECTION CAP

Steel toe cap



- Protection against impacts of min. 200 joules and pressure loading of min. 15 kN
- Permanent edge coverage for cushioning
- Ergonomically shaped
- Comfortable toe room
- Good coverage of the little toe area

INLAY SOLE

Semi-orthopaedic inlay sole ESD



- ESD EQUIPMENT: Protection against electrostatic discharge (ESD). The full-length, exchangeable inlay sole is conductive and designed for the use in ESD safety footwear according to the standards DIN EN ISO 20345 and DIN EN 61340-5-1.
- The sole’s footbed is tailored to the fit of the shoe as well as to the natural, intact longitudinal arch of the foot.
- The improved heel damping is kind to the entire musculoskeletal system – from foot to spinal column.
- Improvement of the shoe climate thanks to the PU foam's open cell structure. So the foot is always kept comfortably dry.
- The extreme softness of the PU foam absorbs shocks on impact and increases walking comfort.

PENETRATION RESISTANCE

Metal-free penetration protection

The textile midsole complies with the penetration safety standard EN 12568 and furthermore fulfils the additional requirements for penetration protection in accordance with EN ISO 20344 / 20345. The light and flexible material enables an increased elasticity of the shoe, which can particularly be recognized when working on uneven grounds or on your knees.

The textile variant offers 100 % foot coverage compared to steel midsoles (foot coverage 85 % due to limits in the shoe manufacturing process). Being 100 % metal-free and antimagnetic, this equipment is used as penetration protection in safety shoes.

OUTSOLE

DIMENSION PRO double-density sole with profile

- Contrasting colours for dynamic design
- Excellent slip resistance
- Antistatic

Outsole: TPU (thermoplastic polyurethane)

- Colour: lightgrey
- Profile depth: 3.0 mm
- Particularly abrasion-resistant
- Heat-resistant to approx. 130°C
- Flexible at cold temperatures to approx. -30°C
- Oil and fuel resistant

Midsole: PU (polyurethane)

- The soft PU core provides a good impact absorption and high wearing comfort
- Extra-thick midsole for improved cushioning

OUTSOLE



ERGONOMIC OUTSOLE DIMENSION PRO

01 HONEYCOMBS Increased slip resistance on smooth industrial floors. The outsole profile consists of honeycombs which imitate the effect of little "suction cups". These ensure good slip resistance and optimum stability when standing.

02 PIVOT POINTS in the sole reduce frictional resistance during rotation to a minimum.

03 TORSION ELEMENT Effective prophylaxis against stumbling and twisting in the centre of the outsole. This stabilizes the outsole in the midfoot area and supports the de-coupling of the front and rear of the foot to avoid twisting. It also reduces the risk of injuries and overstraining.

04 FLEX GROOVES They facilitate improved physiological rolling of the foot. Kneeling activities are also easier when bending physiologically. Furthermore, they effectively support the forwards movement.

05 NEGATIVE PROFILE The sole is rounded at the outer edges, and both ends exhibit a negative profile, which decisively reduces the risk of „getting stuck", in particular during turning movements and when setting the foot down.

06 S-LINE Less fatigue at turning/standing workstations. Natural rolling occurs in this way: Setting the heel down on the outer edge, rolling over the mid-foot in the direction of the ball of the foot. This movement precisely follows an S-line. It is reflected in the design of the outsole.

07 PARTICULARLY THICK MIDSOLE LAYER Industrial floors are often smooth and hard: Full impact absorption with a soft PU core significantly improves the load cushioning. This is especially important when working whilst standing with constant strain on the joints.