TECHNICAL DATA SHEET

RENZO Biomex ESD S3 No. 763421 Sz. 36 - 50





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 laced boot 	Form B - in size 42, the upper height must be at least 11.3 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) E.g. track construction, difficult terrain, forklift operators / lorry drivers Activities on different kinds of ground surfaces and terrains Areas where there is often a risk of twisting the foot

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 - 50

FEATURES	
Certification in accordance with DGUV rule 112-191	• Certified for orthopaedic modifications / inserts
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Full, padded bellows tongue	• Excellent wearing comfort: The tongue prevents pressure marks and avoids dirt from entering into the shoe.
Collar padding	• Excellent wearing comfort: the ankle-wrapping, softly padded upper edge provides for stability and grip in the shoe.
Biomex Protection© plastic cuff 	With the Biomex Protection© you support the ankle in its natural movement and protect it against twisting. Compared with other systems intended to protect the ankle, Biomex Protection© keeps the shoe comfortably light and does not make the ankle stiff. All around professionally protected with the asymmetric upper collar made by Biomex Protection©: Thanks to the offset pivot points, it follows the natural movement of the knee and lower leg along the body's axis.
Heat-resistant laces and seams	Best possible protection against flames, heat and chemicals. Cleaning does not affect the heat resistance.
PU toe protection (polyurethane)	• Directly applied tip protection • Excellent wear protection in the shoe tip area • Protects the upper material in this area against premature wear
UPPER MATERIAL	
Cowhide leather	• Areas of application S1/S2/S3 • Natural material • Wear-resistant • Breathable • Water penetration/absorption in accordance with EN ISO 20345 S2
Hydrophobized nubuck leather	• Areas of application S2/S3 • Natural material • Wear-resistant • Breathable • Water penetration/absorption in accordance with EN ISO 20345 S2 • By hydrophobation, higher resistance against water penetration and water absorption
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.

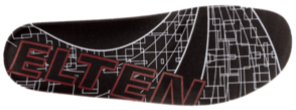
TOE PROTECTION CAP

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

Full-length inlay sole ESD PRO



- 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 full-length, exchangeable inlay sole provides the highest possible comfort in safety shoes.
- The inlay sole is functionally absorbing and releasing moisture and thus provides for a pleasant foot climate.
- The extreme softness of the PU foam absorbs shocks on impact and increases walking comfort.
- Improvement of the shoe climate thanks to the PU foam's open cell structure. So the foot is always kept comfortably dry.

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

SAFETY-GRIP deep-treaded double-density sole with profile

- S-line shaped configuration of the tread blocks, for an ergonomic foot roll
- Excellent slip resistance
- Antistatic

Outsole: PU (polyurethane)

- Colour: black
- Profile depth: 6.0 mm
- Abrasion-resistant
- Heat-resistant to approx. 130°C
- Flexible at cold temperatures to approx. -20°C
- Oil and fuel resistant

Midsole: PU (polyurethane)

- The soft PU core provides a good impact absorption and high wearing comfort