TECHNICAL DATA SHEET

ELIO Biomex M ESD S3 No. 763431 Sz. 36 - 50







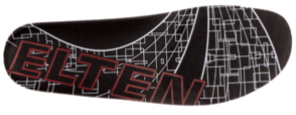
LABELLING ACCORDING TO STANDARD

Standard for safety footwear EN ISO 20345:2022 S3	Basic requirement for S3: **A** Antistatic shoe - **E** Energy absorption in the heel - **FO** Fuel resistance - **WPA** Water penetration and absorption - **P** Penetration resistance - Closed heel area - Profiled outsole
Additional requirements	**WR** WATER RESISTANCE, entire shoe **FO** FUEL RESISTANCE **SR** SLIP RESISTANCE on ceramic tile with glycerine. **SC** SCUFF CAP The overcap manages a certain amount of abrasion. **LG** LADDER GRIP Heel edge of at least 10 mm **M** METARTASAL PROTECTION An integrated metatarsal protection keeps the instep of the foot safe from injuries caused by impacting foreign objects.

FORM

Safety 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) Areas where there is a risk of falling objects 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
Certification in accordance with DGUV rule 112-191	• Certified for orthopaedic modifications / inserts
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.
Metatarsal protection XRD® MET GUARD	This is a specially shaped product designed to protect the midfoot. XRD® MET GUARD is an insert based on polyurethane foam that is positioned in the instep area of the shoe. This shock-absorbing insert protects the midfoot area from injuries caused by falling objects or impacts. It is lightweight, flexible, keeps its shape well and is comfortable to wear. Because it is integrated directly in the shaft of the shoe, the design is even more slimline and inconspicuous than before. In addition, the product's special shape, flexibility and soft fabric top make it suitable for different types of shoes.
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
WR	• watertightness • additional sealed seams on the shaft

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 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
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 (rec) 	• 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. • Inlay sole with recycled material content • 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.

INSOLE	
ESD soft-fleece insole	ESD equipment: Protection against electrostatic discharge (ESD), and without using additional means fulfilling a bridge function to the outsole. • Approximately 50 % lighter than comparable soles made of natural materials • Flexible and shape-retaining • Good air permeability • Excellent wear resistance • High moisture absorption • Quick drying (virtually overnight)
PENETRATION RESISTANCE	
Steel midsole	Best possible protection from below: The corrosion-resistant midsole made of stainless steel complies with the penetration safety standard EN 12568 and furthermore fulfils the additional requirements for penetration protection in accordance with EN ISO 20344 / 20345. Particularly recommendable when working in areas where there is an increased risk of injuries due to pointed or sharp objects, such as in the construction industry.
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