

# TECHNICAL DATA SHEET

IMPULSE green Mid ESD S1P No. 762551


Sz. 36 - 47



## LABELLING ACCORDING TO STANDARD

Standard for safety footwear EN ISO 20345 S1P	Basic requirement for S1P: <b>A</b> Antistatic shoe - <b>E</b> Energy absorption in the heel - <b>FO</b> Fuel resistance - <b>P</b> Penetration resistance - Closed heel area
Additional requirements	<b>SRC</b> 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.
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## AREAS OF APPLICATION

Areas of application	Dry work areas Industry, storage, transport, assembly etc. Areas where there is a risk of penetration from pointed and sharp objects (S1P)  Areas where there is a risk of electrostatic discharge (ESDS/ESD)  E.g. airports, airplane construction, automobile manufacturing No scratches from metal parts Close to induction loops / metal detectors
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## 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)	<ul style="list-style-type: none"> <li>Expanded size range: available in sizes 36 - 47</li> </ul>

## FEATURES

<p>Certification in accordance with DGUV rule 112-191</p>	<ul style="list-style-type: none"> <li>• Certified for orthopaedic inserts</li> </ul> 
<p>Low weight</p>	<ul style="list-style-type: none"> <li>• Use of a composite toe cap and a metal-free puncture protection</li> <li>• Comfortable</li> </ul>
<p>Full, padded bellows tongue</p>	<ul style="list-style-type: none"> <li>• Excellent wearing comfort: The tongue prevents pressure marks and avoids dirt from entering into the shoe.</li> </ul>
<p>Collar padding</p>	<ul style="list-style-type: none"> <li>• Excellent wearing comfort: the ankle-wrapping, softly padded upper edge provides for stability and grip in the shoe.</li> </ul>
<p>Perforated upper</p>	<ul style="list-style-type: none"> <li>• The perforation supports an optimum air circulation inside the shoe and thus contributes to a pleasant wearing comfort.</li> </ul>
<p>Reflective material</p>	<ul style="list-style-type: none"> <li>• Good visibility in the dark</li> </ul> 
<p>Biomex Dynamics® Technology</p>  	<p>When looking at joints, muscles and bones, the human foot follows certain movement patterns while walking. Our Biomex Dynamics outsole supports these and enables a dynamic forward movement inside the shoe, which is identical to the congenital walking movement.</p> <p>Guiding element: The decoupling guide elements parallel to the S-shaped rolling line support the torsion and therefore the rolling dynamic of the front and rear foot.</p> <p>The midsole is heightened on the inside and thus prevents pronation (walking on the inside of the foot).</p>
<p>Metalfree equipment</p>	<ul style="list-style-type: none"> <li>• Low weight</li> <li>• Suitable for work areas sensitive to metal</li> <li>• Does not trigger metal detectors</li> <li>• Use around induction loops is possible</li> </ul>
<p>Abrasion-resistant toe protection</p>	<ul style="list-style-type: none"> <li>• Directly applied to the upper in the shoe tip area</li> <li>• Excellent wear protection in the shoe tip area</li> <li>• Protects the upper in this critical area against premature wear</li> </ul>

## UPPER MATERIAL

<p>Microfibre</p>	<ul style="list-style-type: none"> <li>• Synthetic material</li> <li>• Particularly soft</li> <li>• Retains its shape</li> <li>• Tear-resistant</li> <li>• Quick drying</li> <li>• Abrasion-resistant and light</li> </ul>
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## LINING

<p>Breathable fabric lining</p>	<ul style="list-style-type: none"> <li>• Climate-regulating</li> <li>• Good ventilation</li> <li>• Skin-friendly</li> <li>• High absorption and emission of moisture</li> </ul>
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## LINING

### Heel pocket lining

- The abrasion-resistant microfibre material is particularly sturdy and provides for a pleasant wearing comfort.

## TOE PROTECTION CAP

### Composite 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
- Low weight - weighs less than conventional steel caps
- 100% metal-free
- 100% anti-magnetic

## 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

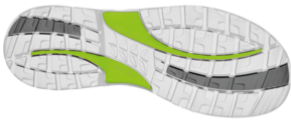
### Metal-free penetration protection

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

BIOMEX DYNAMICS  
double-density sole with  
profile



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

Outsole: TPU (thermoplastic polyurethane)

- Colour: lightgrey, with coloured inserts
- Profile depth: 4.0 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