

# TECHNICAL DATA SHEET

IMPULSE green Low ESD S1P No. 722551


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 shoe 	Form A - in size 42, the upper height must not exceed 11.2 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>Padded upper edge</p>	<ul style="list-style-type: none"> <li>• Excellent wearing comfort: the padded upper edge protects the Achilles tendon.</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>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>Elastic lacing system</p>	<ul style="list-style-type: none"> <li>• For an individual adjustment to the foot</li> <li>• With quick-locking system</li> </ul>
<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

Breathable fabric lining	<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>
Heel pocket lining	<ul style="list-style-type: none"><li>• The abrasion-resistant microfibre material is particularly sturdy and provides for a pleasant wearing comfort.</li></ul>

## TOE PROTECTION CAP

Composite toe cap 	<ul style="list-style-type: none"><li>• Protection against impacts of min. 200 joules and pressure loading of min. 15 kN</li><li>• Permanent edge coverage for cushioning</li><li>• Ergonomically shaped</li><li>• Comfortable toe room</li><li>• Good coverage of the little toe area</li><li>• Low weight - weighs less than conventional steel caps</li><li>• 100% metal-free</li><li>• 100% anti-magnetic</li></ul>
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## INLAY SOLE

Semi-orthopaedic inlay sole ESD 	<ul style="list-style-type: none"><li>• 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.</li><li>• The sole's footbed is tailored to the fit of the shoe as well as to the natural, intact longitudinal arch of the foot.</li><li>• The improved heel damping is kind to the entire musculoskeletal system – from foot to spinal column.</li><li>• Improvement of the shoe climate thanks to the PU foam's open cell structure. So the foot is always kept comfortably dry.</li><li>• The extreme softness of the PU foam absorbs shocks on impact and increases walking comfort.</li></ul>
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## PENETRATION RESISTANCE

Metal-free penetration protection	<p>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.</p> <p>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.</p>
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## 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