

LAJA ESD footwear

laja



www.laja.com

Energy from ergonomics

When the feet bear much of the burden of work, footwear must minimise strain during long days. All of the technical properties and details of LAJA PRO® shoes have been developed to enhance the quality of working life, as a quality product should. Laja occupational shoes have been manufactured since 1979.

Using properly designed occupational footwear helps reduce the stress caused on the locomotor system during the working day. The proper footwear helps us get through the whole day at work. What makes LAJA PRO® occupational shoes particularly safe is their unique sole structure.

LAJA PRO® occupational shoes are safe and support working capacity. They meet the requirements of the Personal Protective Equipment Directive and the standards EN345-347/EN ISO 20345-20347. They support well-being at work, occupational safety and foot health in the most demanding of tasks. The materials and solutions used comply with the technical and ergonomic requirements of international standards for occupational footwear. The shoes bear the CE marking.

RESISTANT SOLE

The LAJA PRO® occupational shoes have an elastic polyurethane sole that is resistant to wear. Polyurethane is an excellent sole material for occupational footwear. Its friction property, in particular, improves slip resistance, and the sole material provides shock absorption for the ball and heel. Other advantages include its light weight, good cold insulation and resistance to a large number of oils and solvents. The grooved outer sole also prevents slipping.

The torsion support moulded in the sole reduces stress on the forefoot and makes the shoe robust.

RESISTANT COATING

The coatings are made of materials that are easy to care for. PU leather and PU nubuck are coated with a thin breathing polyurethane film. The materials are durable, easy to care for, hygienic and resistant to the most common chemicals. A coating made of PU leather is more resistant to humidity than one made of PU nubuck. The product range also includes microfibre shoes that can be machine washed at +40°C. Cordura fabric is a breathing material that is resistant to wear and quick to dry. Court and walking shoes are made of high-quality leather that is easy to keep clean. Shoeshine applied to dry leather will make the shoe dirt repellent and easier to clean the next time.

BREATHABLE LINING

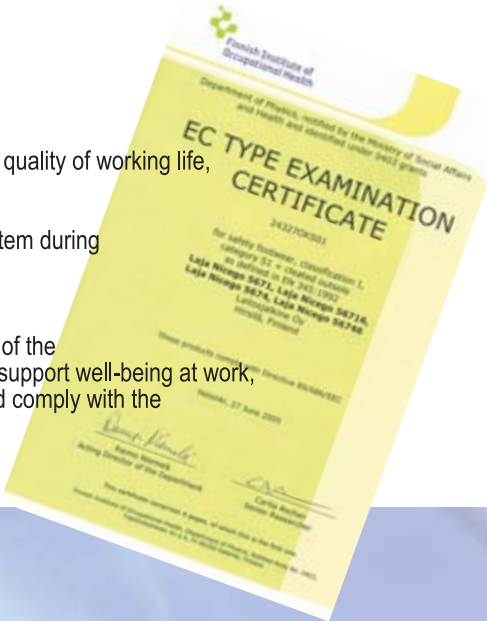
The shoes have a fabric lining that prevents stretch and is resistant to wear. The lining breaths well and increases the useful life of the shoes.

INSOLE

The insole is flexible, resistant to wear and washable. Thanks to their easy fastening mechanism, the insoles can also be replaced.

METICULOUS MANUFACTURING PROCESS

The shoes are manufactured at the shoe factory of Laitosjalkine Oy in Finland. Since the sole is moulded to the upper using the direct injection method, there are no glued seams that could loosen.



LAJA PRO® ESD - reliability and safety

Static electricity leads to an increasing number of problems in many industrial fields. The body of a working person is easily charged with static electricity, which transfers from one object to another through touch or induction. Uncontrolled discharging may damage electronic components or even cause a risk of fire or explosion under certain conditions. One of the main methods used to control electrostatic discharging from a person is to “ground” the person using ESD shoes. ESD shoes must always be used on a semi-conductive floor so that the static electricity stored in the user’s body can be released in a controlled manner.

The main task of ESD footwear is to discharge static electricity stored in a person through the floor in a reliable and safe manner under all conditions.

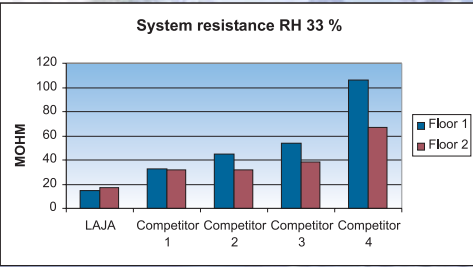
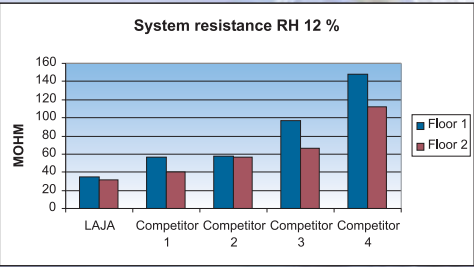
For twenty years, LAJA PRO® ESD shoes have reliably served hundreds of thousands of users worldwide and ensured the operations of millions of components. The success of LAJA PRO® ESD footwear is based on persistent product development, thorough material control and 100% quality control. The excellent conductivity properties of the sole material are preserved in very low humidity on different types of floors. The sole is made of homogeneous semi-conductive polyurethane. The even conductivity of the shoes ensures continuous “ground” contact. Conductivity remains the same throughout the useful life of the footwear, and wear to the sole does not weaken conductivity properties.

System resistance of the floor and shoes must be 750kΩ–35MΩ

The LAJA PRO® ESD shoes meet the requirements of standards EN 61340-5-1 and IEC 61340-4-3. The charge of a person working in an ESD protected area (EPA) must be under 100V at all times.

When entering an EPA zone, shoes are often tested using a gauge consisting of a grounded metal sheet placed on top of the floor. This measuring method provides the resistance of the shoe but not that of the floor. In other words, it does not indicate the effect that the floor resistance has on electrostatic discharging, which is why users should ensure the properties of the floors they use their shoes on and test the system resistance in individual workplaces. Resistance indicators should also be set to comply with the system resistance requirements of the users’ EPA zone.

The resistance of LAJA PRO® ESD shoes is as low as possible (typically some 1 MΩ RH 12%, 23C) to ensure that the system resistance of the floor and shoe remains under 35MΩ. Since the size of components keeps decreasing, components are more sensitive than ever to electrostatic discharging. LAJA PRO® ESD shoes ensure that the charge is always close to 0V. The lowest value for system resistance is 750kΩ (system resistance restricts current flow in the case of an electric shock).



LAJA PRO® ESD footwear works reliably in low humidity. A low system resistance results from small shoe resistance, as well as from the contact between the shoe and the floor. The system resistances of different shoes and floors have been tested at SP (Sveriges Provnings-och Forskningsinstitut, an accredited test laboratory in Sweden).

LAJA PRO® ESD shoes have been certified by an independent external testing facility. System resistance requirements also limit the boundary values allowed for ESD shoes. In facilities where the floor provides only weak discharging, the joint functionality of the floor and footwear can be essentially improved by the right selection of ESD shoes. Thanks to their low resistance, LAJA PRO® ESD shoes also work on floors with weaker electrostatic discharging capabilities.

ESD shoes form a part of productivity and the quality system

In view of the functionality of LAJA PRO® ESD shoes, it is important to ensure that no insulating layer, such as dirt, builds up on the soles as this might decrease the contact between the floor and the shoe. The insoles shall be regularly washed and replaced if needed. When using insoles other than those provided with the shoes, the user shall ensure that the insoles meet ESD requirements. Very thick socks may also cause an insulating layer between the shoe and foot.

A good ESD system improves productivity, quality and safety. An ESD system is only as strong as its weakest link. Correct shoe choices help to ensure that employees are not the cause for components breaking or getting damaged at different phases of production. The system resistance and operations of shoes and various floor materials should be regularly checked.

Symbols



EN 345/EN ISO 20345 Safety shoe (S) with steel toecap (shock/pressure resistance 200J/15kN). Traditional toe protection. Suitable for work involving the risk of very heavy falling loads. Used, for example, in heavy industry and warehouses. The toe protection is marked with the Fe symbol.



EN 347 Occupational shoe (O) with a light ABS plastic toecap. Offers better protection for toes than a normal, soft-toed occupational shoe. Shock resistance is approximately 10J. Suitable for work that does not involve big falling loads. Used, for example, in light industry, such as the electronics and food industries and in kitchens. The toe protection is marked with the Abs symbol.



EN 346/EN ISO 20346 Protective shoe (P) with composite toecap. The shoe has a shock/pressure resistance of 100J/10kN. Suitable for work involving the risk of medium-heavy falling loads. Used, for example, in medium-heavy industry and warehouses. The protective toecap features a composite structure, making the shoe up to 40% lighter than a shoe with a traditional steel toecap. The toe protection is marked with the Kom symbol.



ESD All models feature the ESD (electrostatic discharge) property. The footwear complies with the standard EN 61340-5-1 or EN 61340-4-3.



Removable and washable insole.



Medigo insole, air-pumping soft insole that provides additional shock absorption for Medigo shoes.



The torsion support reduces stress on the forefoot and makes the shoe robust.



Heel shock absorption (E).



Energizer additional shock absorber enhances heel absorption.



Oil-resistant outer sole.

73036

■ Microfibre

Sizes 35-48

Metal-free Medigo sandal, velcro, removable rear strap, machine washable at +40°C



23026

■ PU split leather

Sizes 39-47

Men's Citygo sandal



23036

■ PU leather

■ Split leather

Sizes 39-47

Men's sandal



85056

■ PU leather

□ PU leather

■ PU leather

Sizes 35-48

Perforated clog, rear strap

85046

Sizes 35-48

Clog, rear strap



23046

■ PU leather

■ Split leather

Sizes 39-47

Men's sandal



85076

■ PU leather

□ PU leather

Sizes 35-48

Clog, reversible rear strap

85086

Sizes 35-48

Perforated clog, reversible rear strap



84066

■ PU leather

□ PU leather

Sizes 35-48

Open-toe shoe, buckles, adjustable straps



65006

■ PU leather

□ PU leather

■ PU leather

Sizes 34-48

Clog, thick sole, reversible rear strap



84076

■ PU leather

□ PU leather

■ PU leather

Sizes 35-48

Sandal, buckles, adjustable straps



65006K

■ PU leather

□ PU leather

Sizes 34-42

Clog, thick sole, reversible rear strap



75126

■ PU leather

□ PU leather

■ PU leather

Sizes 35-48

Laja Medigo clog, rear strap

75136

Sizes 35-48

Laja Medigo clog, without rear strap



75056

■ Microfibre

■ Microfibre

■ Microfibre

Sizes 35-48

Laja Medigo clog, machine washable at +40°C,
without rear strap

75046

Sizes 35-48, Laja Medigo clog, machine washable at +40°C

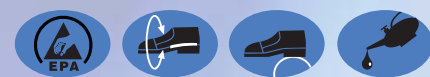


2576

■ Full-grain leather

Sizes 36-42

Ladies' court shoe

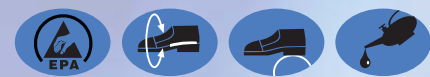


2856

■ Full-grain leather

Sizes 39-47

Men's shoe



2876

■ Full-grain leather

Sizes 39-47

Men's shoe



56796

■ PU-leather

Protection level S1

Sizes 35-47

Nicego safety shoe



56016

■ PU leather, cordura fabric

Protection level O2

Sizes 35-47

Ankle boot, laces



58716

Safety shoe,
Protection level S2



56006

■ PU leather, cordura fabric

Protection level O2

Sizes 35-47

Shoe, laces



56706

Safety shoe,
Protection level S2



56766

■ PU leather

□ Microfibre

Protection level S1

Sizes 35-47

Safety shoe with steel toecap



56966

Protective work shoe,
Protection level O1



56786

■ Microfibre

Protection level S2

Sizes 35-47

Microfibre safety shoe, velcro,
machine washable at +40°C



56986

Protective work shoe,
Protection level O2



56746☒ Microfibre☐ Microfibre☒ MicrofibreProtection level S1
Sizes 35-47

Safety shoe with steel toecap

**56846**Safety shoe,
Protection level P1**56946**Protective work shoe,
Protection level O1**53716**☒ Microfibre☐ Microfibre☒ MicrofibreProtection level
SB+E+A+ORO
Sizes 35-47

Safety shoe with steel toecap

**85706**☒ PU leather☐ PU leatherProtection level
SB+E+A+ORO
Sizes 35-48

Safety shoe with steel toecap

**85906**Protective work shoe,
Protection level
O+E+A+ORO**56776**☒ PU leather☐ MicrofibreProtection level S1
Sizes 35-47

Safety shoe with steel toecap

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