

EN ISO 17249:2013

INFORMATIVE NOTE

SAFETY FOOTWEAR WITH RESISTANCE TO CHAIN SAW CUTTING in accordance with regulation EN ISO 17249:2013

IMPORTANT NOTICE: BEFORE USING OUR FOOTWEAR, PLEASE READ THE PRESENT INFORMATIVE NOTE CAREFULLY

Footwear for professional use must be considered as Personal Protective Equipment (PPE). It is subject to the requirements of the Directive 89/686/EEC (and subsequent amendments) – adopted in Italy with Legislative Decree 475/92 (and subsequent amendments) – providing for compulsory CE labelling for sales purposes. Our safety footwear constitutes Category II Personal Protective Equipment subject to CE Certification by the Notified Body RICOTEST No. 0498, Via Tione 9 – 37010 Pastrengo VR – Italy (www.ricotest.com).

MATERIALS AND MANUFACTURING: All materials used, whether they be natural or synthetic, as well as the manufacturing techniques adopted, have been chosen in order to satisfy the requirements stated by the aforementioned European technical regulation in terms of safety, ergonomics, comfort, robustness and harmlessness.

IDENTIFICATION AND SELECTION OF THE APPROPRIATE MODEL: Before the Law, the employer is responsible for the appropriateness of PPE considering the type of risk present in the work place and the relative environmental conditions. Before using the footwear, it is necessary to check whether the characteristics of the chosen model correspond to the specific requirements for use.

PROTECTION CLASSES AND RISK LEVELS

Our safety footwear is designed and produced to guarantee protection that is appropriate for the type of risk, to the best extent possible. This footwear complies with the basic requirements of regulation EN ISO 17249:2013 and it is labelled with the following pictogram:



X = level of protection

For safety footwear with protection against cuts from hand-held chain saws, three levels of performance are provided for, according to the speed of the saw being used

LEVEL 1: resistance with a saw speed of 20 metres per second

LEVEL 2: resistance with a saw speed of 24 metres per second

LEVEL 3: resistance with a saw speed of 28 metres per second

No personal protective equipment can give a 100% guarantee of protection against cuts from portable chain saws. Resistance to cutting from portable chain saws is tested under laboratory conditions on the front sections of the footwear (the tongue and toe sections); nevertheless, it is possible that cutting injuries may occur in the aforementioned sections.

However, experience has shown that it is possible to design equipment able to offer a certain degree of protection. There are various functional principles that can be used to provide protection, including:

- the chain slipping away upon contact, making it unable to cut through the material;
- an accumulation of fibres that stop the saw once they enter the inside workings of the chain;
- slowing the chain down by using highly cut-resistant fibres that are able to absorb kinetic energy, thereby reducing the speed of the chain.

Often, more than one principle is adopted. It is recommended to choose the model of footwear on the basis of the speed of the chain saw being used.

PPE must be chosen to ensure that the protective sections of footwear and trousers overlap.

Notice for footwear with an anti-puncture midsole

The footwear's puncture-resistance has been measured in the laboratory using a blunt nail with a 4.5mm diameter and by applying a force of 1100 N. If a greater force is applied and the diameter of the nail is smaller, then the risk of puncture increases. In these circumstances, alternative protective measures must be taken into consideration.

In addition to the **basic compulsory requirements** provided for by legislation, further characteristics may be necessary for the footwear to be effective against chain saw cutting. **Additional requirements** for specific uses are represented by Symbols:

TABLE I

Symbol	Requirements / Characteristics	Performance required
P*	Resistance to puncturing of the bottom of the shoe	≥ 1100 N
E	Absorption of energy in the heel area	≥20 J
A	Antistatic footwear	0.1-1000 M Ω
VEDI EN 50321	Electrically insulating footwear	Class 0 or 00
WRU	Resistance to puncturing and water absorption in the shoe upper	≥ 60 min.
CI	Insulation from the cold	Tested to - 17° C
HI	Insulation from the heat	Tested to 150° C
HRO	Heat resistance for contact of the sole	Tested to 300° C
FO	Resistance of the sole to hydrocarbon oils	≤ 12 %
WR	Water resistant footwear	≤ 3 cm ²

M	Metatarsal protection (only for EN ISO 20345)	≥ 40 mm (size 41/42)
AN	Malleolus protection	≤ 10 kN
CR	Cut resistance of the upper	≥ 2.5 (index)
SRA**	Slip resistance for standard ceramic surfaces with lubricant, water + detergent; Flat Heel	min. 0,28 min. 0,32
SRB**	Slip resistance for steel surfaces with glycerine lubricant; flat heel	min. 0,13 min. 0,18
SRC**	SRA +SRB	

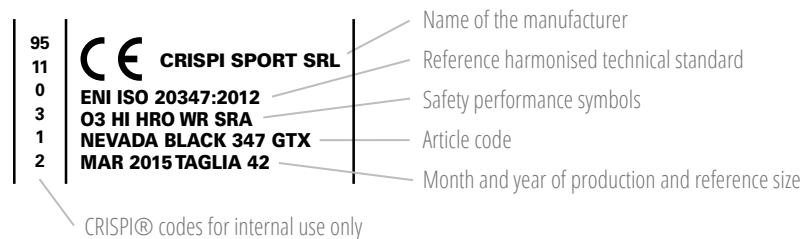
*Puncture-resistance, in the case of synthetic composite midsoles, tends to lessen the smaller the diameter of the puncturing object becomes; however, this type of midsole does offer a greater protective surface and ergonomic advantages (flexibility, insulation, moisture and shock absorption). Product choices must be based on the risk assessment linked to actual working conditions.

** Maximum grip of the sole is normally reached after new footwear has been “worn in” somewhat (as is the case with car tyres), in order to remove any residues of silicone or release agents and any other superficial irregularity of a physical and/or chemical nature.

Slip resistance may vary according to the degree of wear and tear of the sole; compliance with specifications does not guarantee that the user won't slip under any condition.

MARKING

CE : marking in compliance with directive 89/686, incorporated into Italian Law with Legislative Decree no. 475 of 4.12.92;



The interpretation of the symbols and of the categories indicated on the labels of our products allows for appropriate PPE to be chosen for the types of risk present, as per the specifications attached:

- IMPACT TO AND/OR CRUSHING OF THE TOES: all footwear is EN ISO 17249 certified
- IMPACT OF THE HEEL AGAINST THE GROUND: footwear labelled E
- SLIPPING: footwear labelled SRA-SRB or SRC
- COLD: footwear labelled CI

- HEAT: footwear labelled HI
- WATER: footwear labelled WRU (water resistant upper) or WR (water resistant footwear)
- HEAT FOR CONTACT WITH THE SOLE: labelled HRO
- ELECTROSTATIC CHARGES: footwear labelled A
- IMPACT TO THE MALLEOLUS: AN
- PUNCTURE OF THE BASE: footwear labelled P
- HYDROCARBONS: footwear labelled FO

Other risks on the basis of the specific symbol shown on the label. Our footwear is not suitable for protection from risks that are not mentioned in the present Informative Note and, more specifically, those falling under Category III Personal Protective Equipment, as defined by (Italian) Legislative Decree no.475 dated 04/12/1992.

RECOMMENDED USE

Lumberjacks, foresters, farmers and similar activities, for protection of the feet whilst using chain saws.

PRELIMINARY CHECKS AND USAGE

Safety footwear only complies with its characteristics of safety when worn correctly and kept in a perfect state of preservation. Before use, visually check the footwear to ensure that it is in perfect condition and then check correct fitting. Should the footwear not be intact or show any visible signs of damage such as stitching that has become undone, excessive wear and tear of the sole, breakages or stains, then it should be replaced.

USE AND MAINTENANCE

Recommendations for the correct use of footwear:

- choose the appropriate model on the basis of the specific requirements of the work place and of the relative environmental/ atmospheric conditions
- choose the right size, preferably with a practical fitting test
- when not in use, store the footwear in a clean, dry and well-ventilated place
- make sure that footwear is in good condition before every use
- regularly clean the footwear using brushes, workshop paper, rags, etc...; the frequency of this operation is to be decided upon according to workplace conditions
- regularly treat the upper with appropriate polish – made with a basis of grease, wax, silicone, etc
- do not use corrosive products such as petrol, acids, solvents, that may compromise the quality, safety and duration of PPE

- do not dry footwear near to or in direct contact with stoves, radiators or other sources of heat
- changes or amendments to environmental conditions (for example, extreme temperatures or humidity), may significantly reduce the performance of the footwear

STORAGE

To avoid the risk of deterioration of safety footwear, it must be transported and stored in its own original packaging, in a dry and not excessively hot place. As long as they have been removed from undamaged packaging, new shoes may generally be considered fit for use. Under the recommended storage conditions, footwear remains suitable for use for a long time, making it impractical to set an "expiry date". In any case, shoes made completely from PU or with a base in PU generally have a maximum duration of 3 years from the manufacturing date. For the other types of shoe, a maximum duration of 10 years is possible.

DETACHABLE INSOLE

If safety footwear is equipped with a detachable insole, then the certified ergonomic and protective functions refer to the shoe complete with its insole. Always use the shoe with its insole! Only ever replace the insole with an equivalent model from the same original supplier. Safety footwear without a detachable insole is to be used without an insole, as the introduction of an insole could negatively affect the protective functions of the shoe.

ADDITIONAL INFORMATION

Antistatic footwear

Antistatic footwear should be used when it is necessary to dispel electrostatic charges in order to reduce their accumulation to a minimum – thus avoiding a fire hazard with flammable substances and vapours, for example - and in the case that there remains a risk of electric shock coming from an electrical device or other live components. It is nonetheless necessary to note that antistatic footwear is not able to guarantee sufficient personal protection against electric shocks as it simply introduces electrical resistance between the foot and the sole of the shoe. If the risk of electric shock hasn't been completely eliminated, it is necessary to adopt additional measures. These measures, as well as the additional tests listed below, should form part of the regular checks carried out under the workplace injury protection programme. Experience has shown that, for antistatic purposes, the discharge path through a product must have, under normal conditions, an electrical resistance lower than 1000 MΩ at any given moment during the product's life. A value of 100 KΩ has been defined as the minimum limit for resistance of a new product, in order to ensure a certain level of protection against dangerous electric shocks or against fire, in the case that an electrical device presents certain defects when working with voltages up to 250 V. Nevertheless, under certain conditions, users should be informed that the protection provided by the footwear may not be effective and that other protective methods must be used by the person wearing the footwear at any given moment. Electrical resistance of this kind of footwear may be changed significantly by bending, contamination or damp. This type of footwear will not function correctly if worn and

used in damp environments. Consequently, it is necessary to ensure that the product is able to carry out its task of dispelling electrostatic charges, providing a certain level of protection throughout its lifespan. Users are recommended to carry out an on-site electrical resistance test, using this at frequent and regular intervals. If worn for a long period of time, Category I shoes may absorb moisture; in these cases, as well as when the shoes are wet, they may become a conductor. If footwear is used under conditions leading to the material making up the sole becoming contaminated, users must always check the electrical properties of the shoes before entering a hazardous area. Whilst using antistatic shoes, the resistance of the sole must not cancel out the protection provided by the footwear. During use, no insulation components may be introduced between the insole of the shoe and the feet of the user. If an insole is inserted between the base and the foot, it is necessary to check the electrical properties of the shoe/insole combination.

Footwear checks by the user

A.1 - Particulars - The following list and the relative drawings may help the user to check the state of their footwear.

A.2 - Criteria to check the state of footwear - Footwear with protection against chain saw cutting must be checked/inspected at regular intervals, or at least before every use, and it must be replaced when any of the following signs of wear and tear are identified. Some of these criteria may vary in relation to the type of footwear and the materials used:

- The beginnings of noticeable and deep abrasions/cuts in the middle of the upper (Fig. a);
- Strong abrasion of the upper material, especially in the toe area (Fig. b);
- Stitching that has been cut through or damaged as a result of contact with a chain saw, for example (Fig. c);
- The sole has splits/tears longer than 10 mm and deeper than 3 mm (Fig.d);
- A gap between the upper and the sole that is greater than 10 mm-15 mm long and 5 mm wide (depth);
- Height of raised areas in the bending section of less than 1.5 mm (Fig. e);
- Original insole (if present): must not have pronounced deformities and cracks;
- Every so often, it is worthwhile to manually check the inside of the shoe, in order to verify whether the lining is still intact or whether there are any sharp edges in the toe section that may cause injury (Fig.f);
- The fastening system must work well (zips, laces, Velcro);
- The obsolescence period must not be exceeded.

