
**Safety, protective and occupational
footwear for professional use —**

**Part 6:
Additional specifications for safety
footwear**

*Chaussures de sécurité de protection et de travail à usage
professionnel —*

Partie 6: Spécifications additionnelles pour chaussures de sécurité



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 8782 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8782-6 was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 3, *Foot protection*.

ISO 8782 consists of the following parts, under the general title *Safety, protective and occupational footwear for professional use*:

- *Part 1: Requirements and test methods*
- *Part 2: Specification for safety footwear*
- *Part 3: Specification for protective footwear*
- *Part 4: Specification for occupational footwear*
- *Part 5: Additional requirements and test methods*
- *Part 6: Additional specifications for safety footwear*
- *Part 7: Additional specifications for protective footwear*
- *Part 8: Additional specifications for occupational footwear*

Introduction

This part of ISO 8782 extends the scope of ISO 8782-2 by specifying further properties which may be needed in safety footwear for professional use. It refers to ISO 8782-2 for the basic requirements which are mandatory for all items of safety footwear and, if desired, allows other combinations of properties to be specified by the selection of appropriate optional requirements from Table 3 of ISO 8782-2:1998.

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Safety, protective and occupational footwear for professional use —

Part 6: Additional specifications for safety footwear

1 Scope

This part of ISO 8782 specifies, by reference to ISO 8782-1 and ISO 8782-5, additional requirements for safety footwear, relating to water resistance, protection against cutting by hand-held chain saws, resistance to fire fighting hazards (footwear for fire fighters), metatarsal protection and cut resistance.

Basic and further optional requirements for safety footwear are given in ISO 8782-2.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 8782. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 8782 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 8782-1:1998, *Safety, protective and occupational footwear for professional use — Part 1: Requirements and test methods.*

ISO 8782-2:1998, *Safety, protective and occupational footwear for professional use — Part 2: Specification for safety footwear.*

ISO 8782-5:1999, *Safety, protective and occupational footwear for professional use — Part 5: Additional requirements and test methods.*

3 Terms and definitions

For the purposes of this part of ISO 8782, the terms and definitions given in ISO 8782-1 and ISO 8782-2 apply.

4 Classification

Footwear shall be classified in accordance with Table 1 of ISO 8782-2:1998.

5 Safety footwear with resistance to water

5.1 Performance

Footwear shall comply with the basic requirements specified in Table 2 of ISO 8782-2:1998 and with the requirement given in Table 1 of this part of ISO 8782.

Table 1 — Safety footwear with resistance to water

Requirement	Appropriate clause in ISO 8782-5:1999	Classification I ^a
Resistance to water	4.2	X
^a X means that the safety footwear shall comply with the requirement.		

5.2 Marking

Each item of safety footwear shall be clearly and permanently marked, for example by embossing or branding, as specified in clause 6 of ISO 8782-2:1998, and with the symbol WR.

6 Safety footwear with protection against cutting by hand-held chain saw

6.1 Performance

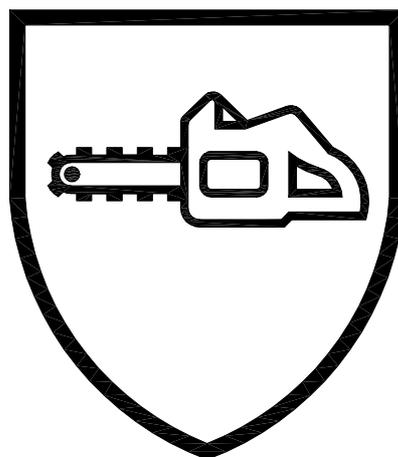
Four classes of footwear are specified according to the different needs of the workplace. Class 0 applies only to classification I footwear and has been introduced on an interim basis to allow manufacturers time to develop footwear of this classification capable of meeting the more rigorous requirements specified for classes 1, 2 or 3. Consequently class 0 will cease to be valid from 1999-12-31.

Footwear shall comply with the basic requirements specified in Table 2 of ISO 8782-2:1998, except where otherwise indicated, and with the requirements given in Table 2 of this part of ISO 8782.

6.2 Marking

Each item of safety footwear shall be clearly and permanently marked, for example by embossing or branding, as specified in clause 6 of ISO 8782-2:1998.

In addition, the pictogram shown in Figure 1, together with the class of protection provided (class 0, class 1, class 2 or class 3), shall be given on a label of dimensions at least 30 mm × 30 mm attached in a visible position on the outside of the footwear.



X = Class of protection

Figure 1 — Pictogram indicating protection against chain saw cutting

Table 2 — Safety footwear with protection against cutting by hand-held chain saw

Requirement	Appropriate clause in		Classification ^a		Indication of change to basic requirements
	ISO 8782-1:1998	ISO 8782-5:1999	I	II	
Cleated outsole	4.8.1.1 4.8.1.2 4.8.1.3		X X X	X X X	Become mandatory requirements
Design		4.3.1	X	X	Limitation on designs permitted in ISO 8782-2:1998
Construction		4.3.2	X	X	
Resistance to chain saw cutting:		4.3.3			
class 0			X		
class 1			X	X	
class 2			X	X	
class 3			X	X	
Flex resistance of metal penetration-resistant insert		4.3.4	O	O	
^a X means that the safety footwear shall comply with the requirement. O means that the safety footwear shall comply with the requirement if the component part is present.					

6.3 Information to be supplied by the manufacturer

Each pair of footwear shall be supplied with a leaflet containing the substance of the following wording.

No personal protective equipment can ensure 100 % protection against cutting from a hand-held chain saw. Nevertheless, experience has shown that it is possible to design equipment which offers a certain degree of protection. Different functional principles which may be applied in order to give protection include:

- chain slipping on contact, such that it does not cut the material;
- clogging fibres drawn by the chain into the drive sprocket to block chain movement;
- chain braking by use of fibres with a high resistance to cutting which absorb rotational energy, thereby reducing chain speed.

Often more than one principle is applied.

Four classes of footwear are available, denoting different levels of chain saw resistance. At the present time, only classification II footwear can achieve the highest level. However, in particular working environments and conditions, classification I footwear may be preferred for ergonomic reasons.

It should be noted that the protective area extends to at least 195 mm above the insole in order to ensure that there is an overlap between the footwear and trousers and is not related to the size of the footwear.

7 Safety footwear with resistance to fire fighting hazards

7.1 Performance

Footwear shall comply with the basic requirements specified in Table 2 of ISO 8782-2:1998, except where otherwise indicated, and with the requirements given in Table 3 of this part of ISO 8782.

Table 3 — Safety footwear with resistance to fire fighting hazards

Requirement	Appropriate clause in		Classification ^a		Indication of change to basic requirements
	ISO 8782-1:1998	ISO 8782-5:1999	I	II	
Water penetration and water absorption	4.4.5		X		Becomes mandatory requirement
Cleated outsole	4.8.1.1 4.8.1.2 4.8.1.3		X X X	X X X	Become mandatory requirements
Resistance to water		4.2	X		
Design		4.4.1	X	X	Limitation on designs permitted in ISO 8782:1998
Construction		4.4.2	X		
Flex resistance of metal penetration-resistant insert		4.4.3	0	0	
Outsole		4.4.4.1 4.4.4.2 4.4.4.3 4.4.4.4	X X X X	X X X X	
Thermal behaviour		4.4.5.1 4.4.5.2 4.4.5.3	X X X	X X X	
^a X means that the safety footwear shall comply with the requirement. O means that the safety footwear shall comply with the requirement if the component part is present.					

7.2 Marking

Each item of safety footwear shall be clearly and permanently marked, for example by embossing or branding, as specified in clause 6 of ISO 8782-2:1998.

In addition, the pictogram shown in Figure 2 shall be given on a label of dimensions at least 30 mm × 30 mm, attached in a visible position on the outside of the footwear.



Figure 2 — Pictogram indicating protection against fire fighting hazards

One of the following symbols shall be marked in the bottom right-hand corner of the pictogram:

- F where the requirements specified in 7.1 are met;
- FP where, in addition, the footwear meets the requirements for penetration resistance specified in 4.3.3 of ISO 8782-1:1998;
- FA where, in addition, the footwear meets the requirements for antistatic properties specified in 4.3.4.2 of ISO 8782-1:1998;
- FPA where, in addition, the footwear meets the requirements for both penetration resistance and antistatic properties specified in ISO 8782-1:1998.

8 Safety footwear with metatarsal protection

8.1 Performance

Footwear shall comply with the basic requirements specified in Table 2 of ISO 8782-1:1998 and with the requirements given in Table 4 of this part of ISO 8782.

Table 4 — Safety footwear with metatarsal protection

Requirement	Appropriate clause in ISO 8782-5:1999	Classification ^a	
		I	II
Construction	4.5.1.1	X	X
	4.5.1.2	X	X
	4.5.1.3	X	X
Impact resistance of metatarsal protective device	4.5.2	X	X

^a X means that the safety footwear shall comply with the requirement.