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Edition 1

**EN 381-5:1995**

Edition 1

Any reference to SABS EN 381-5 is deemed  
to be a reference to this standard  
(Government Notice No. 1373 of 8 November 2002)

## **SOUTH AFRICAN NATIONAL STANDARD**

### **Protective clothing for users of hand-held chain saws**

### **Part 5: Requirements for leg protectors**

This national standard is the identical implementation of EN 381-5:1995,  
and is adopted with the permission of CEN, Avenue Marnix 17, B-1000  
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**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>

**National foreword**

This South African standard was approved by National Committee SABS/TC 1194/SC 02, *Personal safety – Protective clothing*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This SANS edition is technically identical to SABS EN 381-5:1995.

**Reaffirmed and reprinted in July 2015.  
This document will be reviewed every five years  
and be reaffirmed, amended, revised or withdrawn.**

EUROPEAN STANDARD

EN 381-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 1995

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Descriptors: personal protective equipment, work clothing, accident prevention, protective clothing, legs, chain saws, specifications, shock resistance, marking, technical notes

English version

## Protective clothing for users of hand-held chain saws — Part 5: Requirements for leg protectors

Vêtements de protection pour utilisateurs de  
scies à chaîne tenues à la main —  
Partie 5: Exigences pour protèges-jambes

Schutzkleidung für die Benutzer von  
handgeführten Kettensägen —  
Teil 5: Anforderungen an Beinschutz

This European Standard was approved by CEN on 1994-12-14. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

**Foreword**

This European Standard has been prepared by the Technical Committee CEN/TC 162, Protective clothing including hand and arm protection and lifejackets, the secretariat of which is held by DIN. This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive 89/686/EEC. For relationship with EU Directive[s], see informative annex ZA, which is an integral part of this standard. The annex A is informative and contains the selection of design A, B or C. This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1995, and conflicting national standards shall be withdrawn at the latest by October 1995. According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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## 0 Introduction

This European Standard forms part of a series concerned with personal protective equipment designed to protect against the risks arising from the use of hand-held chain saws.

No personal protective equipment can ensure a 100 % protection against cutting from a hand-held chain saw.

Nevertheless, experience has shown that it is possible to design personal protective equipment which offers a certain degree of protection.

Different functional principles may be applied in order to give protection.

These include:

- a) chain slipping: on contact the chain does not cut the material;
- b) clogging: fibres are drawn by the chain into the drive sprocket and block chain movement;
- c) chain braking: fibres have a high resistance to cutting and absorb rotational energy, thereby reducing the chain speed.

Often more than one principle is applied.

## 1 Scope

This European Standard defines design and specifies the requirements for leg protectors which offers protection against cutting from a hand-held chain saw including the requirements for identification, marking and information for the user.

## 2 Normative references

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 381-2 : 1995      *Protective clothing for users of hand-held chain saws — Part 2: Test methods for leg protectors*

## 3 Definitions

For the purposes of this standard the following definitions apply.

### 3.1 leg protectors

Any type of protective garment which protects at least the specified protective area to the level of resistance specified within this standard for the leg, e.g. trousers, leggings, etc.

### 3.2 protective material

Material which is designed to protect the wearer against the cutting effect of the hand-held chain saw. This protective material may include the cloth of the garment.

### 3.3 protective coverage

The area of the garment which is covered by protective material.

### 3.4 specified protective area

The required protective coverage.

## 4 Designs

### 4.1 Designs of leg protectors

This standard defines three designs, design A, design B and design C for leg protectors. Design A, design B and design C have different specified protective areas as stated in 4.2, 4.3 and 4.4.

### 4.2 Design A

#### 4.2.1 Specified protective area for design A

The specified protective area for design A is described under a), b) and c) and is shown in figure 1.

- a) Front. The specified protective area fully covers the front of the garment from 50 mm above the lower end of the legs to 200 mm above the crotch. It is allowed to leave out protective material at the fly.
- b) Rear, left leg. The specified protective area covers on the outer side of the leg a 50 mm wide strip extending from 50 mm above the lower end of the leg to 200 mm below the crotch and then tapering to zero at a height of 200 mm above the crotch.
- c) Rear, right leg. The specified protective area covers on the inner side a 50 mm wide strip from 50 mm from the bottom of the leg to 50 mm below the crotch.

It is allowed to extend the protective coverage, under the condition that the protection level is at least the same as in the specified protective area. There shall be no joins in the protective material within the specified protective area.

#### 4.2.2 Other design requirements for design A

The leg protectors shall have a specified protective area as identified in 4.2.1 and they shall fully enclose both the front and the rear of the user's leg from 50 mm below the crotch to the bottom end of the garment legs. The bottom end of each garment's leg shall be designed to facilitate easy overlap of protective material with safety footwear worn by the user.