

Isikukaitsevahendid. Põlvekaitsed põlviliasendis töötamiseks

Personal protective equipment - Knee protectors for
work in the kneeling position

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14404:2005 sisaldab Euroopa standardi EN 14404:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.01.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14404:2005 consists of the English text of the European standard EN 14404:2004.</p> <p>This document is endorsed on 25.01.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This draft standard specifies the requirements for knee protectors for use in a kneeling position. Requirements for the marking of knee protectors and the information to be supplied by the manufacturer are given. Test methods are described and performance levels are defined. The draft standard does not apply to knee protectors that are medical devices or are intended for sports</p>	<p>Scope:</p> <p>This draft standard specifies the requirements for knee protectors for use in a kneeling position. Requirements for the marking of knee protectors and the information to be supplied by the manufacturer are given. Test methods are described and performance levels are defined. The draft standard does not apply to knee protectors that are medical devices or are intended for sports.</p>
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Võtmesõnad: clothing, health, human factors engineering, knee pads, leg protection, marking, mechanical properties, occupational safety, pads (clothing), protective clothing, protective equipment, specification (approval), specifications, sports equipment, sportswear, testing

ICS 13.340.10

English version

Personal protective equipment - Knee protectors for work in the kneeling position

Equipements de protection individuelle - Protection des genoux pour le travail à genoux

Persönliche Schutzausrüstung - Knieschutz für Arbeiten in kniender Haltung

This European Standard was approved by CEN on 2 September 2004.

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.

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Foreword

This document (EN 14404:2004) has been prepared by 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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

This document 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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

Kneeling is an unnatural working position. Without knee protectors, workers may suffer discomfort and immediate injuries from hard surfaces and small stones and similar objects lying on the surfaces. However no knee protector can ensure that workers will not suffer medical complications if they are required to kneel for long periods.

It is important that knee protectors do not compromise venous drainage in the leg while kneeling or standing up. Therefore it is important that it is easy for workers to change position and to stand up to re-establish a normal blood circulation at frequent intervals while wearing knee protectors.

Work in a kneeling position involves the risk of chronic diseases such as prepatellar bursitis and cartilage injuries caused by continuous pressure on the knees. Knee protection is therefore recommended for all work in the kneeling position. The protection should distribute forces evenly and prevent small hard objects on the ground causing injuries. Many workers have pre-existing damage to their knees particularly to their cartilages from sports injuries and from previous work. These injuries will be made worse by further kneeling, but knee protectors should slow the process.

Work in a kneeling position may expose the skin of the shins, knees and thighs to toxic and corrosive materials normally kept off the body while walking and standing by waterproof or water-resistant footwear. Knee protectors and trousers for use with such wet materials and particularly wet cement, should take this into account and provide adequate protection, as does footwear.

Knee protectors incorporated into trousers or attached to trousers or worn over trousers or on the bare knees should remain in place while kneeling down, and while shuffling (walking) on the knees. Their size should ensure that they protect the knees during movement.

Knee protectors may have other functions not covered by this standard such as providing a good grip while working on sloping roofs or pushing carpet towards its fixings during carpet laying.

1 Scope

This document specifies the requirements for knee protectors for use in a kneeling position. Requirements for the marking of knee protectors and the information to be supplied by the manufacturer are given. Test methods are described and performance levels are defined. Where protection against additional hazards is claimed, performance requirements from other applicable standards may also be applied.

This standard does not apply to knee protectors that are medical devices or are intended for sports.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 340, *Protective clothing — General requirements*.

EN 863:1995, *Protective clothing — Mechanical properties — Test method: Puncture resistance*.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

knee protectors

devices used by people kneeling down to protect their knees

3.2

Type 1 knee protectors

knee protectors that are independent of other clothing and fasten around the leg

3.3

Type 2 knee protectors

foam plastic or other padding material in pockets on trouser legs, or permanently attached to trousers

NOTE The position of Type 2 knee protectors on trousers may be fixed or adjustable.

3.4

Type 3 knee protectors

devices not attached to the body, but put into place as the user moves around. These may be for each knee or both knees together

3.5

Type 4 knee protectors

knee protectors for one or both knees, which are parts of devices with additional functions such as a frame to aid standing up, or a kneeling seat. The knee protectors may be worn on the body or be independent

3.6

fastening

part of a knee protector, which keeps it in the right position

3.7

zone of protection

area of protective equipment that is intended to provide protection, and is subject to specific testing