

## **Mehaanilise kaitsega elektriotstarbelised kindad ja sõrmitud kindad**

Gloves and mitts with mechanical protection for electrical purposes

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50237:2001 sisaldab Euroopa standardi EN 50237:1997 ingliskeelset teksti.

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The standard is available from Estonian standardisation organisation.

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classifications, composition, definitions, dimensional measurements, dimensions, electrical properties, hot-line works, insulation gloves, ma, mechanical properties, mechanical strength, plastics, property, protective clothing, rubber, shapes, test, thermal properties

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Descriptors: Hot-line works, protective clothing, insulation gloves, plastics, rubber, classifications, definitions, composition, property, dimensions, dimensional measurements, shapes, mechanical properties, mechanical strength, electrical properties, thermal properties, test, marking, utilisation, packing

English version

## **Gloves and mitts with mechanical protection for electrical purposes**

Gants et moufles avec protection  
mécanique pour travaux électriques

Handschuhe für mechanische  
Beanspruchung für Arbeiten unter  
Spannung

This European Standard was approved by CENELEC on 1997-03-11. CENELEC 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.

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## **CENELEC**

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

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## Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 78, Tools and equipment for live working.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50237 on 1997-03-11.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 1997-12-01
- latest date by which national standards  
conflicting with the EN have to be withdrawn (dow) 1997-12-01

Mechanical requirements derived from those of protective gloves against mechanical risks are given in EN 388:1994.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports essential requirements of EC Directive 89/686/EEC.

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## Introduction

This draft standard was established on the basis of EN 60903 on insulating gloves. The same quality level of insulation was required as basic principle.

The purpose thereof was to combine in one unique glove the insulating properties of elastomer gloves and the mechanical properties of leather gloves which are commonly used to protect mechanically the insulating gloves.

For the time being, only three classes of gloves are covered due to the lack of data and practice for high voltages. Some difficulties were observed when combining electrical and mechanical properties. It seems to be difficult to obtain flexible gloves providing adequate mechanical protection.

## 1 Scope

This Standard is applicable to insulating gloves and mitts made of plastic or elastomer for use without over-gloves for mechanical protection. Unless otherwise stated the use of the term "glove" includes both gloves and mitts.

The gloves are intended to be used for working live or close to live parts at a nominal voltages up to 7 500 V a.c. (or 11 250 V d.c.)

For other voltages detailed information is not yet available.

### 1.1 Classes of gloves

Three classes of gloves, differing in electrical characteristics, are provided and are designated class 00, class 0, class 1.

For other classes such as class 2, class 3 and class 4 additional data will be necessary.

### 1.2 Categories of gloves

Five categories of gloves, differing in properties related to acid, oil, ozone and a combination of all are provided and designated, Categories A, H, Z and P respectively and also extreme low temperature designated Category C.

## 2 Normative references

This European Standard incorporates by dated or undated reference, 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 (including amendments).

EN 388	1994	Protective gloves against mechanical risks
EN 60903	1992	Specification for gloves and mitts of insulating material for live working (IEC 903:1988, modified)
ENV 50196	1995	Live working - Required insulation level and related air distances Calculation method
IEC 50(121)	1978	International Electrotechnical Vocabulary (IEV) Chapter 121: Electromagnetism
IEC 50(151)	1978	Chapter 151: Electrical and magnetic devices
IEC 50(601)	1985	Chapter 601: Generation, transmission and distribution of electricity - General

IEC 60-1	1989	High voltage test techniques - Part 1: General definitions and test requirements (harmonized as HD 588.1 S1:1991)
IEC 160	1963	Standard atmospheric conditions for test purposes
IEC 212	1971	Standard conditions for use prior to and during the testing of solid electrical insulating materials (harmonized as HD 437 S1:1984)
IEC 410	1973	Sampling plans and procedures for inspection by attributes
IEC 1318	1994	Live working - Guidelines for quality assurance plans
ISO 472	1988	Plastics - Vocabulary
ISO 9000	1987	Quality management and quality assurance standards - Guidelines for selection and use

### 3 Definitions

For the purposes of this standard, the following definitions apply.

- 3.1 palm:** Part of glove covering the face of the central inside hand.
- 3.2 wrist:** The narrowest part of the glove above the cuff.
- 3.3 contour glove:** A glove shaped at the upper part of the cuff in such a way as to facilitate the bending of the arm.
- 3.4 fork:** Part of glove at the junction of two fingers, or finger and thumb.
- 3.5 curved glove:** A glove on which the fingers are slightly bent in a position corresponding to the position the hand forms while holding an object.
- 3.6 lined glove:** A glove with an inside lining of textile attached to the plastic or to the elastomer.
- 3.7 composite glove:** A glove composed of several attached or superimposed layers of different colours.
- 3.8 mitt:** A glove which has less than four fingers individually enclosed.
- 3.9 cuff:** Part of a glove from the wrist to the open part of the glove.
- 3.10 cuff roll:** The roll or reinforced edge of a glove at the cuff.
- 3.11 electrical puncture:** A disruptive breakdown through a solid insulant [IEV 121-03-13].
- 3.12 flashover:** An arc by-passing an insulating body [IEV 121-03-14] and occurring between electrodes and over or around, but not through, the equipment being tested
- 3.13 nominal voltage:** A suitable approximate value of voltage used to identify a system [IEV 601-01-21].
- 3.14 plastic:** A material which contains as an essential ingredient a high polymer and which at some stage in its processing into finished products can be shaped by flow [ISO 472-1.2.22].
- 3.15 elastomer:** A generic term that includes rubbers, latex and elastomeric compounds that may be natural or synthetic or a mixture or a combination of both.