

## Kaitsekindad külma eest

Protective gloves against cold

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|                                                                                                                                  |                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Käesolev Eesti standard EVS-EN 511:1999 sisaldab Euroopa standardi EN 511:1994 ingliskeelset teksti.                             | This Estonian standard EVS-EN 511:1999 consists of the English text of the European standard EN 511:1994.                                                        |
| Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. | This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. |
| Standard on kättesaadav Eesti standardiorganisatsioonist.                                                                        | The standard is available from Estonian standardisation organisation.                                                                                            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Käsitlusala:</b><br>Standard määrab kindlaks nõuded ja testimismeetodid kinnaste jaoks, mis kaitsevad konvektiivse külma või soojusjuhtivusest tingitud külma eest, mis on alla -50 °C. Selline külm võib olla tingitud kliimatingimustest või tööstuslikust tegevusest. Kasutusomaduste erinevaid tasemeid iseloomustavad väärtused on kindlaks määratud iga ohuklassi või spetsiifilise kasutusvaldkonna kohta kehtivate erinõuetega. Tooteid saab antud viisil testida ainult nende ekspluatatsiooniomaduste taseme määramiseks, mitte aga kaitsmisastme määramiseks. | <b>Scope:</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|

ICS 13.340.40

**Võtmesõnad:** graafilised tingmärgid, kaitseriietus, kindad, märgistamine, soojuskaitse, soojuskindlus, tehnilised andmed, termiline isolatsioon, testid, testimistingimused, tööriietus, õnnetuse vältimine

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Descriptors: Personal protective equipment, protective glove, glove, thermal insulation, cold.

**English version**

**Protective gloves against cold**

Gants de protection contre le froid

Schutzhandschuhe gegen Kälte

This European Standard was approved by CEN on 1994-09-09.

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

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## Foreword

This European Standard has been prepared by CEN/TC 162 'Protective clothing including hand and arm protection and life jackets', 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, and conflicting national standards withdrawn, by March 1995 at the latest.

Annexes designated 'normative' are part of the standard. Annexes designated 'informative' are given only for information. In this standard, Annex A is normative.

In accordance with 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.

## 1 Scope

This standard defines the requirements and test methods for gloves which protect against convective or conductive cold down  $-50^{\circ}\text{C}$ . This cold can be linked to the climatic conditions or an industrial activity. The specific values of the different performance levels are decided by the special requirements for each class of risk or the special areas of application. Product tests can only be carried out for performance levels and not for levels of protection.

## 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.

|                 |                                                                                                       |
|-----------------|-------------------------------------------------------------------------------------------------------|
| EN 344:1992     | Requirements and test methods for safety, protective and occupational footwear for professional use   |
| EN 388:1994     | Protective gloves against mechanical risks                                                            |
| EN 420:1994     | General requirements for gloves                                                                       |
| ISO 4675:1990   | Fabrics coated with rubber or plastics - Low temperature bend test                                    |
| ISO 5085-1:1989 | Textiles; determination of thermal resistance part 1 - Low thermal resistance                         |
| ISO 7854:1984   | Rubber or plastics-coated-fabrics - Determination of resistance to damage by flexing (dynamic method) |

## 3 General requirements

These gloves shall meet the requirements of EN 420:1994, clause 5.1 sizes and clause 4.4.2 determination of pH value.

## 4 Performance requirements

The gloves shall at least comply with performance level 1 of EN 388:1994, clause 6.1 abrasion resistance and clause 6.3 tear resistance.

### 4.1 Flexibility behaviour

When tested in accordance with 5.1 there shall not be any cracks. This test is not necessary for uncoated materials.

### 4.2 Water impermeability

Provided it is additionally requested, when tested in accordance with 5.2 water penetration shall not appear earlier than 30 min after the start.