Tuletõrjujate kaitsekindad

Protective gloves for firefighters

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 659:2003 sisaldab Euroopa standardi EN 659:2003 ingliskeelset teksti. Käesolev dokument on jõustatud 14.08.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 659:2003 consists of the English text of the European standard EN 659:2003. This document is endorsed on 14.08.2003 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard defines minimum performance requirements and test methods for firefighters' protective gloves. This standard applies only to firefighters' protective gloves which protect the hands during normal firefighting, including search and rescue. These gloves are not intended for deliberate handling of liquid chemicals, but provide some protection against accidental contact with chemicals. Protective gloves for special operations within firefighting service are excluded from the scope of this standard	**Scope:** This standard defines minimum performance requirements and test methods for firefighters' protective gloves. This standard applies only to firefighters' protective gloves which protect the hands during normal firefighting, including search and rescue. These gloves are not intended for deliberate handling of liquid chemicals, but provide some protection against accidental contact with chemicals. Protective gloves for special operations within firefighting service are excluded from the scope of this standard

ICS 13.340.40

Võtmesõnad: fire fighting, insulating gloves, management, personn, properties, protective clothing, protective equipment, protective gloves, rescue, rescue and ambulance services, rescue equipment, salvage, special clothing, specification (approval), specifications, testing

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 659

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Supersedes EN 659:1996

English version

Protective gloves for firefighters

Gants de protection pour sapeurs-pompiers

Feuerwehrschutzhandschuhe

This European Standard was approved by CEN on 7 February 2003.

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 Management Centre 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 Management Centre has the same status as the official versions.

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

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Foreword

This document (EN 659:2003) 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 December 2003, and conflicting national standards shall be withdrawn at the latest by December 2003.

This document supersedes EN 659:1996

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.

Annex A is informative.

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

Introduction

Suitable gloves for firefighters can enable the firefighters to work for long periods under hazardous conditions. However, it is not possible to relate the performance levels achieved in laboratory testing to protection levels under actual use conditions because the thermal hazards in wet and dry conditions may be very different.

1 Scope

This standard defines minimum performance requirements and test methods for firefighters' protective gloves.

This standard applies only to firefighters' protective gloves which protect the hands during normal firefighting, including search and rescue.

These gloves are not intended for deliberate handling of liquid chemicals, but provide some protection against accidental contact with chemicals.

Protective gloves for special operations within firefighting service are excluded from the scope of this standard.

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 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 344-1:1992*, Requirements and test methods for safety, protective and occupational footwear for professional use.*

EN 344-1:1992/A1:1997, *Requirements and test methods for safety, protective and occupational footwear for professional use.*

EN 367, Protective *clothing- protection against heat and fire- method of determining heat transmission on exposure to flames.*

EN 368, *Protective clothing- Protection against liquid chemicals- Test method: Resistance of materials to penetration by liquids.*

EN 388, *Protective gloves against mechanical risks.*

EN 407, *Protective gloves against thermal risks (heat and/or fire).*

EN 420:1994, *General requirements for gloves.*

EN 702, *Protective clothing — Protection against heat and flame — Test method: Determination of the contact heat transmission through protective clothing or its materials.*

EN 20811, *Textile — Determination of resistance to water penetration —- Hydrostatic pressure test.*

EN ISO 6942, *Protective clothing — Protection against heat and fire — Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat (ISO 6942:2002)*

EN ISO 13935-2, *Textiles - Seam tensile properties of fabrics and made-up textile articles - Part 2: Determination of maximum force to seam rupture using the grab method (ISO 13935-2:1999)*

ISO 15383, *Protective gloves for firefighters — Laboratory test methods and performance requirements.*

ISO 17493, *Clothing and equipment for protection against heat— Test method for convective heat resistance using a hot air circulating oven.*

3 Requirements

3.1 General requirements

Firefighters' protective gloves shall conform with all the general requirements of EN 420 except the lengths which are defined in 3.2.

When parts of the palm and/or parts of the back of the glove are made from dissimilar materials, these dissimilar materials shall be tested separately. In those circumstances when the sample size is significantly larger than the particular part of the glove being tested, then the manufacturer shall be requested to supply samples of the appropriate materials.

After each thermal test (3.7, 3.8, 3.9, 3.10), the innermost lining material shall be visually inspected. The glove is deemed to have failed the test if there is evidence of melting.

3.2 Sizes

When measured according to 6.2 of EN 420:1994, the sizes shall correspond with those requirements established in the applicable clause of EN 420, but the minimum length shall be in accordance with table 1.

Tabelle 1 — Minimum length of protective gloves for firefighters

Glove size	6	7	8	9	10	11
Fits	hands size 6	hands size 7	hands size 8	hands size 9	hands size 10	hands size 11
Minimum length of glove (mm)	260	270	280	290	305	315

NOTE The user should take care that the gloves are compatible with the sleeves of the selected protective clothing and ensure that no skin is exposed when the arms are stretched.

3.3 Abrasion resistance

The glove shall be tested according to the appropriate clause of EN 388, on the palm of the glove. When tested accordingly, it shall be in accordance with at least performance level 3 (2 000 cycles).

3.4 Cut resistance

The glove shall be tested according to the appropriate clause of EN 388, both on the palm and the back of the glove. When tested accordingly, it shall be in accordance with at least performance level 2 (index 2.5).

3.5 Tear resistance

The glove shall be tested according to the appropriate clause of EN 388, on the palm of the glove. When tested accordingly, it shall be in accordance with at least performance level 3 (50 N).

3.6 Puncture resistance

The glove shall be tested according to the appropriate clause of EN 388, on the palm of the glove. When tested accordingly, it shall be in accordance with at least performance level 3 (100 N).