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Utrustning för arbete under spänning – Isolerande handskar

*Live working –
Gloves of insulating material*

Som svensk standard gäller europastandarden EN 60903:2003. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60903:2003.

Nationellt förord

Europastandarden EN 60903:2003

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60903, Second edition, 2002^{*)} - Live working - Gloves of insulating material**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare utgiven svensk standard SS-EN 50237, utgåva 1, 1997, SS-EN 60903, utgåva 1, 1993 och SS-EN 60903/A11, utgåva 1, 1997, gäller ej fr o m 2006-07-01.

^{*)} Se även bifogat Corrigendum, February 2003.

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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SEK är Sveriges röst i standardiseringsarbetet inom elområdet

Svenska Elektriska Kommissionen, SEK, svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

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Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

SEK

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EUROPEAN STANDARD

EN 60903

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2003

ICS 13.260; 29.240.20; 29.260.99

Supersedes EN 60903:1992 + A11:1997 & EN 50237:1997

English version

**Live working -
Gloves of insulating material**
(IEC 60903:2002 + corrigendum 2003, modified)

Travaux sous tension -
Gants en matériau isolant
(CEI 60903:2002 + corrigendum 2003,
modifiée)

Arbeiten unter Spannung -
Handschuhe aus isolierendem Material
(IEC 60903:2002 + Corrigendum 2003,
modifiziert)

This European Standard was approved by CENELEC on 2003-07-01. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 78/462A/FDIS, future edition 2 of IEC 60903, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60903 on 2003-07-01.

A draft amendment, prepared by the Technical Committee CENELEC TC 78, Equipment and tools for live working, was submitted to the formal vote and was approved by CENELEC for inclusion into EN 60903 on 2003-07-01.

This European Standard

- supersedes EN 60903:1992 + A11:1997, covering insulating gloves (and mitts) which would normally be used in conjunction with leather protector gloves worn over the insulating gloves (and mitts) to provide mechanical protection,
- supersedes EN 50237:1997, covering gloves (and mitts) which combine in one unique glove the insulating properties of elastomer gloves and the mechanical properties of leather gloves. The result of the combination is defined as a composite glove;
- includes requirements and testing for a "long composite glove" which extends protection to most of the upper arm.

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) 2004-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-07-01

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

NOTE Subclauses which are additional to those in IEC 60903 are prefixed "Z".

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A, B, C and ZA are normative and annexes D, E, F, G, H and I are informative.

Annex ZA has been added by CENELEC.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|------------------------------|--------------|--|-------------------|--------------|
| IEC 60050-151 | 2001 | International Electrotechnical Vocabulary (IEV) Part 151: Electrical and magnetic devices | - | - |
| IEC 60050-601 | 1985 | Chapter 601: Generation, transmission and distribution of electricity - General | - | - |
| IEC 60050-651 | 1999 | Part 651: Live working | - | - |
| IEC 60060-1 + corr. March | 1989 1990 | High-voltage test techniques Part 1: General definitions and test requirements | HD 588.1 S1 | 1991 |
| IEC 60060-2 | 1994 | Part 2: Measuring systems | EN 60060-2 A11 | 1994 1998 |
| IEC 60212 | 1971 | Standard conditions for use prior to and during the testing of solid electrical insulating materials | HD 437 S1 | 1984 |
| IEC 60417 | database | Graphical symbols for use on equipment | - | - |
| IEC 60743 | 2001 | Live working - Terminology for tools, equipment and devices | EN 60743 | 2001 |
| IEC 61318 | 1994 | Live working - Guidelines for quality assurance plans | - | - |
| IEC 61477 | 2001 | Live working - Minimum requirements for the utilization of tools, devices and equipment | EN 61477 | 2002 |
| ISO 37 | 1994 | Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties | - | - |
| ISO 472 | 1999 | Plastics - Vocabulary | EN ISO 472 | 2001 |

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|--------------|-------------|
| ISO 2592 | 2000 | Determination of flash and fire points - Cleveland open cup method | EN ISO 2592 | 2001 |
| ISO 2859-1 | 1999 | Sampling procedures for inspection by attributes Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection | - | - |
| ISO 2977 | 1997 | Petroleum products and hydrocarbon solvents - Determination of aniline point and mixed aniline point | - | - |
| ISO 3104 | 1994 | Petroleum products - Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity | EN ISO 3104 | 1996 |
| ISO 9000 | 2000 | Quality management systems - Fundamentals and vocabulary | EN ISO 9000 | 2000 |
| ISO 9001 | 2000 | Quality management systems - Requirements | EN ISO 9001 | 2000 |
| ISO 9004 | 2000 | Quality management systems - Guidelines for performance improvements | EN ISO 9004 | 2000 |

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LIVE WORKING – GLOVES OF INSULATING MATERIAL

1 Scope

This International Standard is applicable to:

- insulating gloves and mitts which should normally be used in conjunction with leather protector gloves worn over the insulating gloves to provide mechanical protection;
- insulating gloves and mitts usable without over-gloves for mechanical protection.

Unless otherwise stated, the use of the term “glove” includes both gloves and mitts. The use of the term “insulating gloves” designates gloves providing electrical protection only. The use of the term “composite gloves” designates gloves providing electrical and mechanical protection.

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.

IEC 60050(151):2001, *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60050(601):1985, *International Electrotechnical Vocabulary (IEV) – Chapter 601: Generation, transmission and distribution of electricity – General*

IEC 60050(651):1999, *International Electrotechnical Vocabulary (IEV) – Part 651: Live working*

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60060-2:1994, *High-voltage test techniques – Part 2: Measuring systems*

IEC 60212:1971, *Standard conditions for use prior to and during the testing of solid electrical insulating materials*

IEC 60417 (all parts), *Graphical symbol for use on equipment*

IEC 60743:2001, *Live working – Terminology for tools, equipment and devices*

IEC 61318:1994, *Live working – Guidelines for quality assurance plans*

IEC 61477:2001, *Live working - Minimum requirements for the utilization of tools, devices and equipment*

ISO 37:1994, *Rubber, vulcanized or thermoplastic – Determination of tensile stress-strain properties*