

INTERNATIONAL STANDARD

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Second edition
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Live working – Gloves of insulating material

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LIVE WORKING–
GLOVES OF INSULATING MATERIAL**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60903 has been prepared by IEC technical committee 78: Live working.

This second edition:

- cancels and replaces the first edition of IEC 60903, published in 1988, 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;
- includes and cancels IEC 61942, first edition, published in 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 text of this standard is based on the following documents:

FDIS	Report on voting
78/462A/FDIS	78/479/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The contents of the corrigenda of February 2003 and January 2005 have been included in this copy.

INTRODUCTION

In this document, the clauses on requirements and testing are reorganized in order to bring together the common requirements and tests, then to lay down separately those which are specific to insulating gloves for electrical protection normally worn under leather protector gloves as opposed to those specific to insulating gloves for combined electrical and mechanical protection. This arrangement meets the basic necessity that a same quality level of electrical insulation is achieved for all types of insulating gloves.

This document has been prepared according to the requirements of IEC 61477 where applicable.

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*

ISO 472:1999, *Plastics – Vocabulary*

ISO 2592:2000, *Determination of flash and fire points – Cleveland open cup method*

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*

ISO 9000:2000, *Quality management systems – Fundamentals and vocabulary*

ISO 9001:2000, *Quality management systems – Requirements*

ISO 9004:2000, *Quality management systems – Guidelines for performance improvements*