

INTERNATIONAL STANDARD

Live working - Electrical insulating matting

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

Live working - Electrical insulating matting

FOREWORD

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IEC 61111 has been prepared by IEC technical committee 78: Live Working. It is an International Standard.

This third edition cancels and replaces the second edition published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) review of the scope;
- b) introduction of AC/DC use and AC use only;
- c) verification of dated referenced standards;
- d) improvement of the marking;
- e) rewriting of the test for slip resistance;
- f) updating the use of IEC 61318;

- g) creation of an alternative test;
- h) revision and updating of Annexes A, B, C, D, F, G.

The text of this International Standard is based on the following documents:

Draft	Report on voting
78/1559/FDIS	78/1584/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

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

The product covered by this document can have an impact on the environment during some or all stages of its life cycle. These impacts can range from slight to significant, be of short-term or long-term, and occur at the global, regional or local level.

Except for a disposal statement in the instructions for use, this document does not include requirements and test provisions for the manufacturers of the product, or recommendations to the users of the product for environmental improvement. However, all parties intervening in its design, manufacture, packaging, distribution, use, maintenance, repair, reuse, recovery and disposal are invited to take account of environmental considerations.

1 Scope

This document is applicable to electrical insulating matting made of flexible insulating material for use as a covering of the surface on which the worker is positioned and for worker's electrical protection on electrical installations up to 36 000 V AC for AC use or 36 000 V AC and 54 000 V DC for AC/DC use.

NOTE 1 The electric potential of the surface on which the worker is positioned is usually that of earth.

NOTE 2 See 4.2 for maximum use voltage.

NOTE 3 DC only rated matting is not specified in this document.

NOTE 4 This document does not cover the use of insulating blankets (see IEC 61112)

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60060-1, *High-voltage test techniques - Part 1: General terminology and test requirements*

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

IEC 60068-1, *Environmental testing - Part 1: General and guidance*

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

IEC 61318, *Live Working - Methods for assessment of defects and verification of performance applicable to tools, devices and equipment*

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

ISO 2592, *Petroleum and related products - Determination of flash and fire points - Cleveland open cup method*

ISO 2977, *Petroleum products and hydrocarbon solvents - Determination of aniline point and mixed aniline point*

ISO 3104, *Petroleum products - Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity*

ISO 4649:2017, *Rubber, vulcanized or thermoplastic - Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 23529, *Rubber - General procedures for preparing and conditioning test pieces for physical test methods*

Bibliography

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

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

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

IEC 60417, *Graphical symbols for use on equipment*

IEC 60743, *Live working - Terminology for tools, devices and equipment*

IEC 61112, *Live working - Electrical insulating blankets*

ISO 48-2, *Rubber, vulcanized or thermoplastic - Determination of hardness - Part 2: Hardness between 10 IRHD and 100 IRHD*
ISO 472, *Plastics - Vocabulary*

ISO 1382, *Rubber - Vocabulary*

ISO 1817, *Rubber, vulcanized or thermoplastic - Determination of the effect of liquids*
