



SLOVENSKI STANDARD

oSIST prEN IEC 60903:2025

01-junij-2025

Delo pod napetostjo – Električne izolirne rokavice

Live working - Electrical insulating gloves

Arbeiten unter Spannung - Elektrisch isolierende Handschuhe

Travaux sous tension - Gants isolants électriques

Ta slovenski standard je istoveten z: prEN IEC 60903:2015

ICS:

https://s13.260.s.iteh.ai/e	Varstvo pred električnim udarom. Delo pod napetostjo	Protection against electric shock. Live working
13.340.40	Varovanje dlani in rok	Hand and arm protection

oSIST prEN IEC 60903:2025

en



78/1513/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER:

IEC 60903 ED4

DATE OF CIRCULATION:

2025-05-02

CLOSING DATE FOR VOTING:

2025-07-25

SUPERSEDES DOCUMENTS:

78/1506A/RR

IEC TC 78 : LIVE WORKING

SECRETARIAT:

France

SECRETARY:

Mr Jonathan HIRTZ

OF INTEREST TO THE FOLLOWING COMMITTEES:

HORIZONTAL FUNCTION(S):

ASPECTS CONCERNED:

Electricity transmission and distribution,Safety

 SUBMITTED FOR CENELEC PARALLEL VOTING NOT SUBMITTED FOR CENELEC PARALLEL VOTING**Attention IEC-CENELEC parallel voting**

The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting.

The CENELEC members are invited to vote through the CENELEC online voting system.

[osIST prEN IEC 60903:2025](https://standards.iteh.ai/catalog/standards/cist/ded0d990-61e4-4e43-a4a8-ce837b766924/osist-pren-iec-60903-2025)

<https://standards.iteh.ai/catalog/standards/cist/ded0d990-61e4-4e43-a4a8-ce837b766924/osist-pren-iec-60903-2025>

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any relevant "In Some Countries" clauses to be included should this proposal proceed. Recipients are reminded that the CDV stage is the final stage for submitting ISC clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Live working - Electrical insulating gloves

PROPOSED STABILITY DATE: 2027

NOTE FROM TC/SC OFFICERS:

Link to Committee Draft for Vote (CDV) online document:

<https://osd.iec.ch/#/editor/archive/2e598776-2e6f-191e-e063-5b1000aeb5f/en/CCDV/1>

How to access

This link leads you to the Online Standards Development (OSD) platform for National Mirror Committee's (NMC) comments. The project draft may be found further down this document.

Resource materials

We recommend NCs to review the available materials to better understand the member commenting on the OSD platform. This includes the:

- OSD NC roles overview: [here](#)
- How to add and submit comments to the IEC: [here](#)

Contact

Should you require any assistance, please contact the IEC IT Helpdesk at helpdesk@iec.ch.

iTeh Standards (<https://standards.iteh.ai>) Document Preview

[oSIST prEN IEC 60903:2025](#)

<https://standards.iteh.ai/catalog/standards/sist/ded0d990-61e4-4e43-a4a8-ce837b766924/osist-pren-iec-60903-2025>

CONTENTS

FOREWORD	4
INTRODUCTION	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	8
4 Requirements.....	10
4.1 General	10
4.2 Classification	10
4.3 Physical requirements	11
4.3.1 Composition	11
4.3.2 Dimensions	11
4.3.3 Workmanship and finish	13
4.4 Mechanical, climatic and environmental requirements	14
4.5 Electrical requirements	14
4.6 Marking	15
4.7 Packaging	15
4.8 Instructions for use	16
5 Type tests	16
5.1 General	16
5.2 Visual and dimensional inspection	16
5.2.1 General	16
5.2.2 Classification	16
5.2.3 Dimensions	16
5.2.4 Thickness.....	17
5.2.5 Workmanship and finish	17
5.3 Marking	17
5.3.1 Visual and dimensional inspection.....	17
5.3.2 Durability of marking	17
5.4 Packaging and instructions for use	17
5.5 Mechanical tests.....	17
5.5.1 General	17
5.5.2 Tensile strength and elongation at break	17
5.5.3 Resistance to mechanical puncture	18
5.5.4 Tension set	20
5.6 Dielectric tests.....	20
5.6.1 General	20
5.6.2 Moisture conditioning	20
5.6.3 Test equipment	21
5.6.4 Failure indicators.....	21
5.6.5 Voltage dielectric test procedure	21
5.7 Ageing test	25
5.8 Thermal tests	25
5.8.1 Low temperature test.....	25
5.8.2 Flame retardancy test.....	27

5.9	Tests on gloves or long gloves with special properties	28
5.9.1	Category A - Acid resistance	28
5.9.2	Category H - Oil resistance	28
5.9.3	Category Z - Ozone resistance	29
5.9.4	Category C - Extremely low temperature resistance	29
5.9.5	Category F - Leakage current resistance	29
5.10	Specific mechanical testing for composite gloves	31
5.10.1	Abrasion resistance.....	31
5.10.2	Cutting resistance	33
5.10.3	Tear resistance	36
6	Alternative tests in case of gloves having completed the production phase	37
6.1	Tensile strength and elongation at break for unlined gloves.....	37
6.2	Tensile strength and elongation at break for lined gloves.....	38
6.3	Resistance to mechanical puncture	38
6.4	Tension set.....	38
6.5	Voltage dielectric tests	38
7	Assessment of defects and verification of performance of gloves having completed the production phase.....	38
8	Modifications.....	38
Annex A (informative)	In-service recommendations	39
A.1	General	39
A.2	Storage prior to issue and between use	39
A.3	Examination before use	39
A.4	Temperature	39
A.5	Precautions in use	39
A.6	Periodic inspection and electrical re-testing	40
Annex B (normative)	Suitable for live working; double triangle (IEC 60417-5216:2002-10)	41
Annex C (normative)	Chronological order for type tests	42
C.1	General	42
C.2	Group size requirements	43
C.2.1	Group 1	43
C.2.2	Group 2	44
C.2.3	Group 3	44
C.2.4	Group 4 - Additional tests for composite gloves	44
C.2.5	Group 5 - Additional tests for gloves of category A	44
C.2.6	Group 6 - Additional tests for gloves of category H	44
C.2.7	Group 7 - Additional tests for gloves of category Z	44
C.2.8	Group 8 - Additional tests for gloves of category F	44
Annex D (informative)	Guidelines for the selection of the class of glove in relation to nominal voltage of a system	45
D.1	General	45
D.2	AC	45
D.3	DC	45
Annex E (normative)	Liquid for tests on gloves of category H - Oil resistance	46
E.1	Particularities of liquid 102	46
E.2	Characteristics of oil no. 1	46

Annex F (normative) Cotton canvas additional characteristics	47
Annex G (normative) Classification of defects and tests to be allocated.....	49
Annex H (informative) Rationale for the classification of defects	51
Bibliography	53
Figure 1 – Contour of glove	12
Figure 2 – Illustration of the working area	14
Figure 3 – Dumb-bell test piece for mechanical tests (plan view)	18
Figure 4 – Test plates and needle for resistance to mechanical puncture	19
Figure 5 – Test set up for the dielectric test on glove.....	23
Figure 6 – Bend (fold) line for low and extremely low temperature test	26
Figure 7 – Set-up for low and extremely low temperature folding tests.....	26
Figure 8 – Set-up for the flame retardancy test	28
Figure 9 – Test arrangement for leakage current resistance	30
Figure 10 – Abrasion resistance tester	32
Figure 11 – Apparatus for testing cutting resistance	34
Figure 12 – Test piece direction and location for tear resistance	36
Figure 13 – Shape of test piece for tear resistance	37

iTeh Standards

Document Preview

Table 1 – Special properties	10
Table 2 – Standard lengths of gloves.....	11
Table 3 – Maximum thickness of the gloves.....	13
Table 4 – Clearance from open part of the glove to water line	21
Table 5 – AC Proof test and withstand test	24
Table 6 – DC Proof and Withstand test.....	25
Table 7 – AC Test voltage for gloves of category F.....	31
Table 8 – Presentation of test results on glove test piece	35
Table 9 – Sampling plan	37
Table A.1 – Distances between the cuff of the protective over-glove and the top of the cuff of the glove.....	39
Table C.1 – General type test procedure	42
Table D.1 – Designation of maximum use voltage.....	45
Table E.1 – Characteristics of oil no. 1	46
Table F.1 – Identification sheet - Reference test piece - Cotton weave fabric	47
Table G.1 – Classification of defects and associated requirements and tests.....	49
Table H.1 – Justification for the type of defect.....	51

<https://standards.iteh.ai/prEN/IEC/60903-2025/10.1000.61.4.4e43-a4a8-ce837b766924/osist-prEN-iec-60903-2025>