



**SLOVENSKI STANDARD**  
**SIST EN 60903:2000**  
**01-junij-2000**

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**Specification for gloves and mitts of insulating material for live working**

Specification for gloves and mitts of insulating material for live working

Norm für Handschuhe aus isolierendem Material zum Arbeiten an unter Spannung stehenden Teilen

Spécification pour gants et moufles en matériaux isolants pour travaux électriques  
**(standards.iteh.ai)**

**Ta slovenski standard je istoveten z: EN 60903:1992**

<https://standards.iteh.ai/catalog/standards/sist/9768fc52-c521-4146-8268-025b5e8f405f/sist-en-60903-2000>

**ICS:**

13.260	Xæ•ç[ Á!^âÁ ^\ dã } ä ~ áæ[ { EÖ^ [ Á[ áÁ æ ^ç •ç	Protection against electric shock. Live working
13.340.40	Varovanje dlani in rok	Hand and arm protection

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**en**

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EUROPEAN STANDARD

EN 60903

NORME EUROPEENNE

EUROPÄISCHE NORM

October 1992

UDC 621.315.6:614.896.2

Descriptors: Live working, electrical equipment, insulating glove, rubber, characteristic, dimension, test

## ENGLISH VERSION

Specification for gloves and mitts of insulating material for live working  
(IEC 903:1988, modified)

Spécification pour gants et mouflés en matériaux isolants pour travaux électriques  
(CEI 903:1988, modifiée)

Norm für Handschuhe aus isolierendem Material zum Arbeiten an unter Spannung stehenden Teilen  
(IEC 903:1988, modifiziert)

This European Standard was approved by CENELEC on 1992-09-15. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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, 8-1050 Brussels

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Ref. No. EN 60903:1992 E

FOREWORD

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 903:1988 could be accepted without textual changes, has shown that some common modifications were necessary for the acceptance as European Standard.

The reference document, together with the common modifications prepared by the CENELEC Technical Committee TC 78, was submitted to the CENELEC members for formal vote.

The text of the draft was approved by CENELEC as EN 60903 on 15 September 1992.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1993-09-01
- latest date of withdrawal of conflicting national standards (dow) 1993-09-01

For products which have complied with the relevant national standard before 1993-09-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1998-09-01.

Annexes and appendices designated "normative" are part of the body of the standard. Annexes and appendices designated "informative" are given only for information. In this standard, appendices C and D and annex ZA are normative, appendices B, F and G are informative.

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ENDORSEMENT NOTICE

The text of the International Standard IEC 903:1988 was approved by CENELEC as a European Standard with agreed common modifications as given below.

## COMMON MODIFICATIONS

## 4 Classification

Replace the note by:

NOTE: Guidance for use will be given in Appendix A (under consideration).

## 5 Physical requirements

5.5.2 Replace "petrol (gasoline)" by "denatured alcohol".

5.6 Add "and in accordance with any national regulation" after "of the customer".

## 6 Tests on gloves

6.3.3 In the second paragraph delete "included" before "angle of 12°".

6.4.1 After the first paragraph add:

NOTE: The equivalence of d.c. tests and a.c. tests is under consideration and consequently the values of d.c. test voltages are under consideration.

6.5 Delete the values under d.c. tests in table IV for all classes.

## 7 Tests on gloves with special properties

7.4.1 Replace "(50 ± 5 parts per hundred million by volume)" by "(0,54 ppm ± 10 % by volume)".

7.4.2 Replace "(50 ± 5 parts per hundred million by volume)" by "(0,54 ppm ± 10 % by volume)".

## Appendices

Appendix A Replace the text by "Reserved".

Appendix B Add "(informative)".

## COMMON MODIFICATIONS

Appendix C Add "(normative)".

Replace the table by the following:

TABLE CI

Description of test	Sub-clause	Type tests							Routine tests
		Lot 1	Lot 2	Lot 3	Lot 4	Lot 5 A	Lot 6 H	Lot 7 Z	
Visual (6.2)									
Shape	6.2.1	1							
Dimensions	6.2.2	2							
Thickness	6.2.3	3	1	1	1	1	1	1	1
Workmanship and finish	6.2.4	4							
Marking	6.2.5	5							
Packaging	6.2.6	6							
Mechanical (6.3)									
Tensile strength and elongation at break	6.3.2	7 b)	3						
Puncture resistance	6.3.3	8 b)							
Tension set	6.3.4	9 b)	4						
Dielectric (6.4)									
- A. C. voltage	6.4.2			2 e)					2 e)
- D. C. voltage	6.4.3			3 e)					3 e)
Ageing (6.5)	6.5	2							
Thermal (6.6)									
Flame retardancy	6.6.1	10							
Low temperature	6.6.2				2 d)				
Special properties (7)									
Category A - Acid resistance	7.2					2			
Category H - Oil resistance	7.3						2		
Category Z - Ozone resistance	7.4							2	
Category M - High mechanical resistance	7.5	b)							
Category R - Acid, oil, ozone and high mechanical resistance	7.6	c)							
Category C - Extreme low temperature	7.7				d)				
Size of each lot (the unit is the glove)		1	1	3	3	4	4	2	

The numbers given in the table indicate the order in which the tests are to be made.

- b) Indicated values different for gloves of categories M or R.
- c) Deemed successful if it meets requirements of Sub-clauses 7.2, 7.3, 7.4 and 7.5.
- d) Values specified are different in the case of gloves of Category C.
- e) By agreement between the manufacturer and the customer, either the a.c. or the d.c. tests should be used.

## COMMON MODIFICATIONS

Appendix D Add "(normative)".

Appendix E Replace the text by "Reserved".

Appendix F Add "(informative)".

Delete the last paragraph.

Appendix G Add "(informative)".

In the first paragraph of G4, delete the last sentence.

## Figures

Fig. 1 Replace by the new figure 1.

Fig. 2 Replace by the new figure 2.

Fig. 4 Delete "mm" after the numbers.

Add to note 1: "; tolerances are + 10 %".

Fig. 8 Replace by the new figure 8.

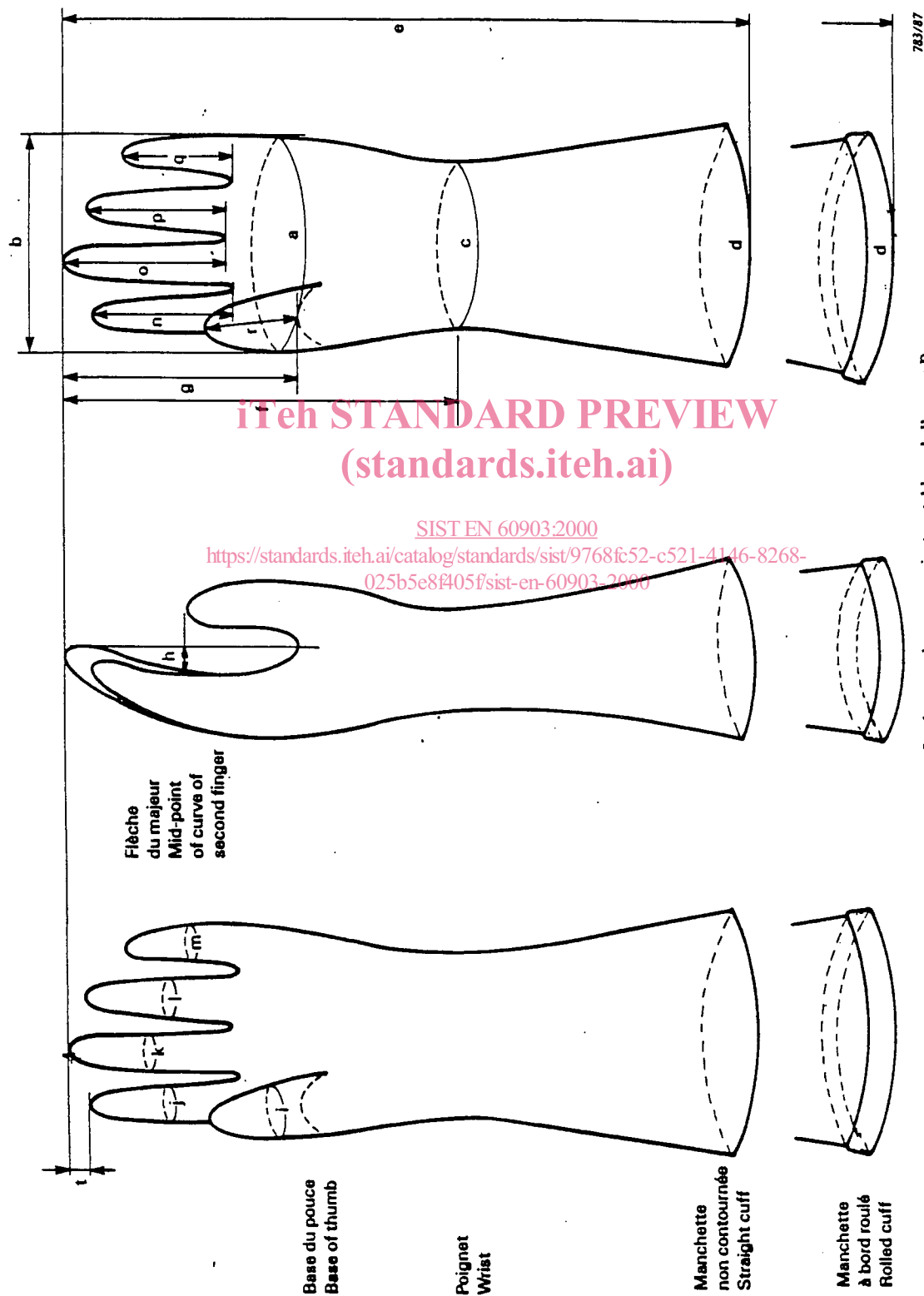
Fig. 9 Replace by the new figure 9.

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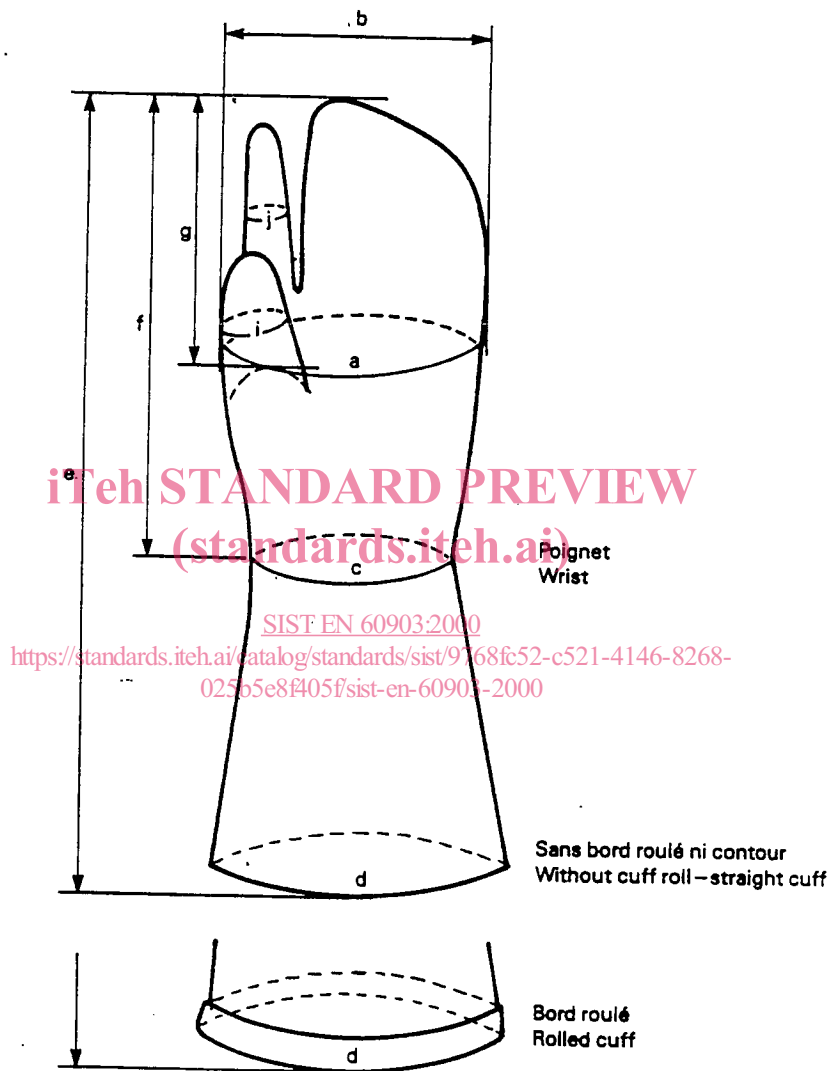
SIST EN 60903:2000

<https://standards.iteh.ai/catalog/standards/sist/9768fc52-c521-4146-8268-025b5e8f405f/sist-en-60903-2000>

Note. — Les lettres a, b, etc. renvoient au tableau de l'annexe B.  
Letters a, b, etc. refer to table of Appendix B.

Fig. 1. — Forme du gant / Shape of glove.

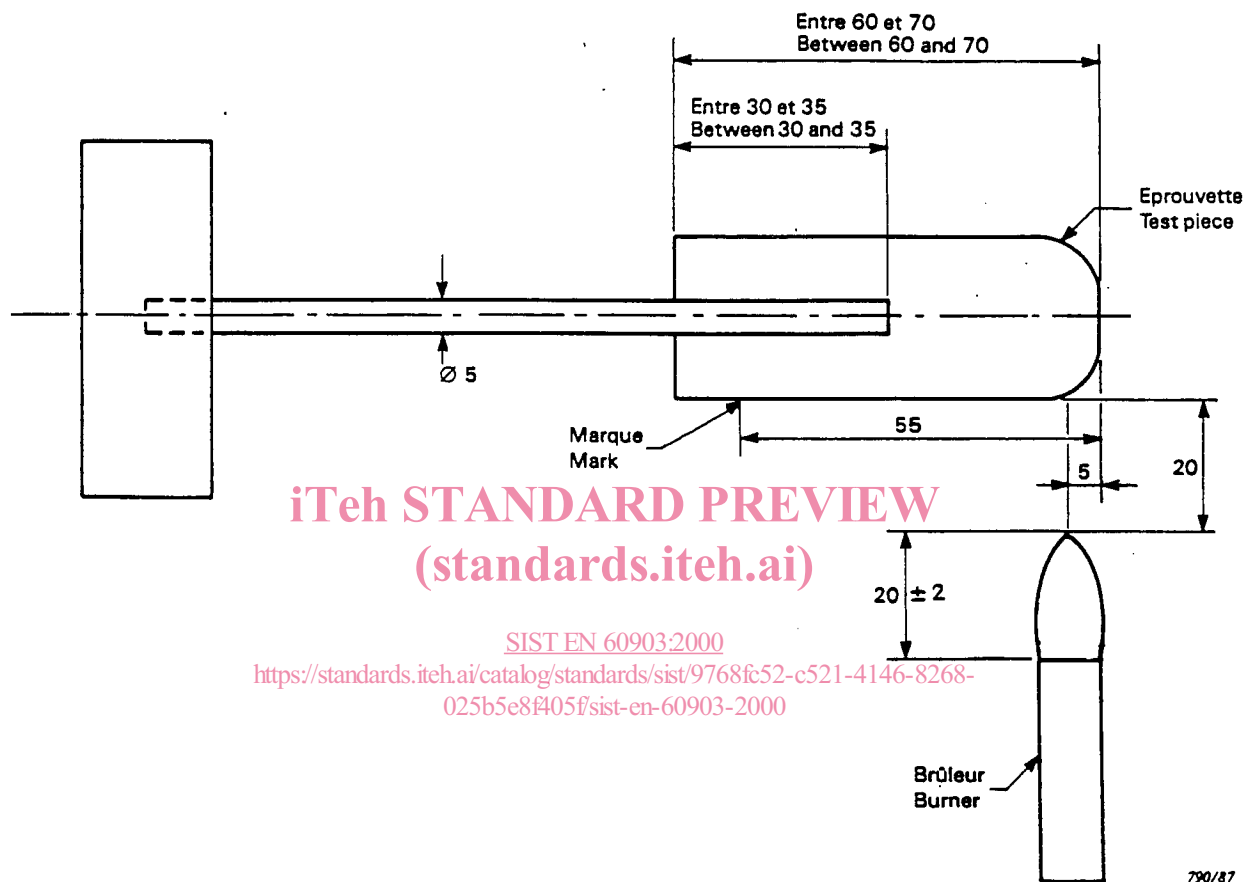


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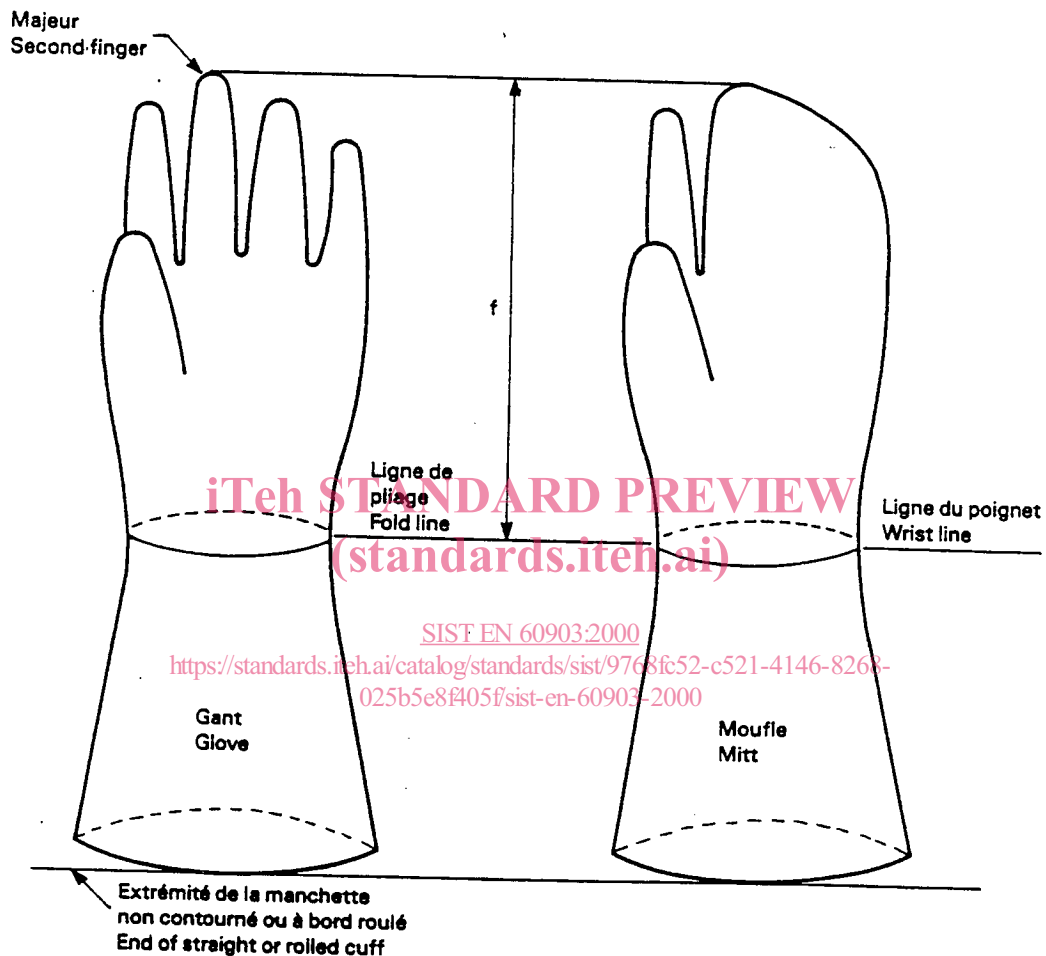
*Note.* — Les dimensions a, b, c, d, e, f, g, i, j, n, r ont les mêmes valeurs que pour les gants (voir la figure 1).  
Dimensions a, b, c, d, e, f, g, i, j, n, r same as for gloves (see figure 1).

FIG. 2. — Forme des moufles.  
Shape of mitts.

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Toutes les dimensions sont en millimètres  
All dimensions are in millimetres

FIG. 8. – Non-propagation de la flamme (voir paragraphe 6.6.1).  
Flame retardancy (see Sub-clause 6.6.1).

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*Note.* – Pour l'emplacement du poignet, voir les dimensions données dans les figures 1 et 2, pages 59 et 60, et le tableau de l'annexe B.  
See Figures 1 and 2, pages 59 and 60, for dimensions that locate wrist, and table of Appendix B.

FIG. 9. – Ligne de pliage (cintrage) pour essai de tenue à basse température (voir paragraphe 6.6.2).  
Bend (fold) line for low temperature test (see Sub-clause 6.6.2).

## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

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

IEC Publication	Date	Title	EN/HD	Date
50(121)	1978	International Electrotechnical Vocabulary (IEV) Chapter 121: Electromagnetism	-	-
50(151)	1978	Chapter 151: Electrical and magnetic devices	-	-
50(601)	1985	Chapter 601: Generation, transmission and distribution of electricity General	-	-
60-1	1973*	High-voltage test techniques Part 1: General definitions and test requirements	-	-
160	1963	Standard atmospheric conditions for test purposes	-	-
212	1971	Standard conditions for use prior to and during the testing of solid electrical insulating materials	HD 437 S1	1984
410	1973	Sampling plans and procedures for inspection by attributes	-	-

Other publication quoted:

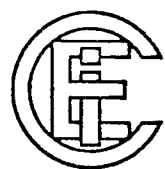
ISO 37:1977 Rubber, vulcanized - Determination of tensile stress-strain properties.

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\* IEC 60-1:1973 is superseded by IEC 60-1:1989 which was endorsed by HD 588 S1:1991

# NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI  
IEC  
903



Commission Electrotechnique Internationale

International Electrotechnical Commission

Международная Электротехническая Комиссия

Première édition  
First edition  
1988

**Spécification pour gants et moufles  
en matériaux isolants pour travaux électriques**

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**Specification for gloves and mitts  
of insulating material for live working**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SPECIFICATION FOR GLOVES AND MITTS OF INSULATING MATERIAL FOR LIVE WORKING

### FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

### PREFACE

This standard has been prepared by IEC Technical Committee No. 78: Tools for Live Working.

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The text of this standard is based on the following documents:

Six Months' Rule	Report on Voting
78(CO)18	78(CO)23

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

*The following IEC publications are quoted in this standard:*

- Publications Nos. 50(121) (1978): International Electrotechnical Vocabulary (IEV). Chapter 121: Electromagnetism.  
 50(151) (1978): Chapter 151: Electrical and Magnetic Devices.  
 50(601) (1985): Chapter 601: Generation, Transmission and Distribution of Electricity – General.  
 60-1 (1973): High-voltage Test Techniques. Part 1: General Definitions and Test Requirements.
- 160 (1963): Standard Atmospheric Conditions for Test Purposes.  
 212 (1971): Standard Conditions for Use prior to and during the Testing of Solid Electrical Insulating Materials.  
 410 (1973): Sampling Plans and Procedures for Inspection by Attributes.

*Other publication quoted:*

- ISO Standard 37 (1977): Rubber, vulcanized – Determination of tensile stress-strain properties.