



**SLOVENSKI STANDARD**  
**SIST-TS CLC/TS 61112:2007**

01-marec-2007

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**Pregrinjala iz izolacijskega materiala za uporabo v elektrotehniki (IEC 61112:1992 + A1:2002 + popravek maj 2000 + A1:2002)**

Blankets of insulating material for electrical purposes (IEC 61112:1992 + A1:2002 + corrigendum May 2000 + A1:2002)

Abdecktcher aus isolierendem Material zum Arbeiten unter Spannung  
(standards.iteh.ai)

Nappes en matriau isolant pour travaux lectriques

<https://standards.iteh.ai/catalog/standards/sist/02cbebf5-dd2-40d9-8aa3-d95dc681f581/sist-ts-clc-ts-61112-2007>

**Ta slovenski standard je istoveten z: CLC/TS 61112:2006**

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**ICS:**

13.260 Xæ•œ[ Á!^åÁ|\ dã } ä Protection against electric  
~ åæ[ { ÉÖ^|[ Á [ åÁ æ ^ç •ç shock. Live working

**SIST-TS CLC/TS 61112:2007**

**en**

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

# CLC/TS 61112

December 2006

ICS 13.260; 29.240.20; 29.260.99

English version

## Blankets of insulating material for electrical purposes (IEC 61112:1992 + corrigendum May 2000 + A1:2002)

Nappes en matériau isolant  
pour travaux électriques  
(CEI 61112:1992  
+ corrigendum mai 2000 + A1:2002)

Abdecktücher aus isolierendem Material  
zum Arbeiten unter Spannung  
(IEC 61112:1992  
+ Corrigendum Mai 2000 + A1:2002)

This Technical Specification was approved by CENELEC on 2006-09-02.

CENELEC members are required to announce the existence of this TS in the same way as for an EN and to make the TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

[SIST-TS CLC/TS 61112:2007](https://standards.iteh.ai/catalog/standards/sist/02ab11f5-5dd7-40d9-8aa8-112811281128/sist-ts-clc-ts-61112-2007)

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# 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 the International Standard IEC 61112:1992 + corrigendum May 2000 + A1:2002, prepared by IEC TC 78, Live working, was submitted to the formal vote and was approved by CENELEC as CLC/TS 61112 on 2006-09-02.

The following date was fixed:

- latest date by which the existence of the CLC/TS  
has to be announced at national level (doa) 2007-03-01

Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 61112:1992 + corrigendum May 2000 + A1:2002 was approved by CENELEC as a Technical Specification without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

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 60050-121	1978	International Electrotechnical vocabulary (IEV) Chapter 121: Electromagnetism	-	-
IEC 60050-151	1978	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 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60060-3	1976	High-voltage test techniques Part 3: Measuring devices	-	-
IEC 60160	1963	Standard atmospheric conditions for test purposes	-	-
IEC 60212	1971	Standard conditions for use prior to and during the testing of solid electrical insulating materials	HD 437 S1	1984
IEC 60417	Data base	Graphical symbols for use on equipment	-	-
IEC 61318	1994	Live working - Guidelines for quality assurance plans	-	-
ISO 472	1988	Plastics - Vocabulary	-	-
ISO 2592	1973	Petroleum products - Determination of flash and fire points - Cleveland open cup method	EN 22592 <sup>1)</sup>	1993

<sup>1)</sup> EN 22592 is superseded by EN ISO 2592:2001, which is based on ISO 2592:2000.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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 <sup>2)</sup>	1989	Petroleum products and hydrocarbon solvents - Determination of aniline point and mixed aniline point	-	-
ISO 3104 <sup>3)</sup>	1976	Petroleum Products - Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity	-	-
ISO/IEC 9000	1987	Quality management and quality assurance standards - Guidelines for selection and use	EN 29000 <sup>4)</sup>	1987
ISO/IEC 9001	1987	Quality systems - Model for quality assurance in design/development, production, installation and servicing	EN 29001 <sup>5)</sup>	1987
ISO/IEC 9002	1987	Quality systems - Model for quality assurance in production and installation	EN 29002 <sup>6)</sup>	1987
ISO/IEC 9003	1987	Quality systems - Model for quality assurance in final inspection and test	EN 29003 <sup>7)</sup>	1987

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<sup>2)</sup> ISO 2977 is superseded by ISO 2977:1997.

<sup>3)</sup> ISO 3104 is superseded by ISO 3104:1994, which is harmonized as EN ISO 3104:1996.

<sup>4)</sup> EN 29000 is superseded by EN ISO 9000:2005, which is based on ISO 9000:2005.

<sup>5)</sup> EN 29001 is superseded by EN ISO 9001:2000, which is based on ISO 2001:2000.

<sup>6)</sup> EN 29002 is superseded by EN ISO 9002:1994, which is based on ISO 9002:1994.

<sup>7)</sup> EN 29003 is superseded by EN ISO 9003:1994, which is based on ISO 9003:1994.

**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC  
61112**

**Edition 1.1**

2002-06

Edition 1:1992 consolidée par l'amendement 1:2002  
Edition 1:1992 consolidated with amendment 1:2002

**Nappes en matériau isolant  
pour travaux électriques**

**Blankets of insulating material  
for electrical purposes  
(standards.iteh.ai)**

[SIST-TS CLC/TS 61112:2007  
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d95dc681f581/sist-ts-clc-ts-61112-2007](https://standards.iteh.ai/catalog/standards/sist/02cbebf5-5dd2-40d9-8aa3-d95dc681f581/sist-ts-clc-ts-61112-2007)

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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*Pour prix, voir catalogue en vigueur  
For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**BLANKETS OF INSULATING MATERIAL FOR ELECTRICAL PURPOSES**

## 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.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61112 has been prepared by IEC technical committee 78: Tools for live working.

This consolidated version of IEC 61112 consists of the first edition (1992) [documents 78(CO)64/FDIS and 78(CO)68/RVD], its corrigendum May 2000 and its amendment 1 (2002) [documents 78/437/FDIS and 78/458/RVD].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 1.1.

A vertical line in the margin shows where the base publication has been modified by corrigendum and amendment 1.

Annexes A, B, C and D form an integral part of this International Standard.

Annexes E, F and G are for information only.

The committee has decided that the contents of the base publication, its corrigendum and its amendment will remain unchanged until 2004. At this date, the publication will be

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

## BLANKETS OF INSULATING MATERIAL FOR ELECTRICAL PURPOSES

### 1 Scope

This International Standard is applicable to insulating blankets for the protection of workers from accidental contact with live or earthed electrical conductors, apparatus or circuits and avoidance of short circuits on a.c. and d.c. installations.

#### 1.1 Classes

Five classes of blankets, differing in electrical characteristics, are provided and designated as class 0, class 1, class 2, class 3 and class 4.

#### 1.2 Categories

Six categories of blankets different in properties related to acid, oil, ozone, mechanical puncture and a combination of oil and ozone are provided and designated categories A, H, Z, M, S respectively, and also extreme low temperature designated category C.

### 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(121):1978, *International Electrotechnical Vocabulary (IEV) Chapter 121: Electromagnetism*

IEC 60050(151):1978, *International Electrotechnical Vocabulary (IEV) Chapter 151: Electrical and magnetic devices*

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

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

IEC 60060-3:1976, *High-voltage test techniques – Part 3: Measuring devices*

IEC 60160:1963, *Standard atmospheric conditions for test purposes*

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

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

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

ISO 472:1988, *Plastics – Vocabulary. Bilingual edition*

ISO 2592:1973, *Petroleum products – 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 2977:1989, *Petroleum products and hydrocarbon solvents – Determination of aniline point and mixed aniline point*

ISO 3104:1976, *Petroleum products – Transparent and opaque liquids – Determination of kinematic viscosity and calculation of dynamic viscosity*

ISO 9000:1987, *Quality management and quality assurance standards – Guidelines for selection and use*

ISO 9001:1987, *Quality systems – Model for quality assurance in design/development, production, installation and servicing*

ISO 9002:1987, *Quality systems – Model for quality assurance in production and installation*

ISO 9003:1987, *Quality systems – Model for quality assurance in final inspection and test*

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### 3 Definitions

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For the purpose of this International Standard the following definitions apply.

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#### 3.1

##### **elastomer**

a generic term that includes rubbers, latex and elastomeric compounds that may be natural, or synthetic, or a mixture, or a combination of both

#### 3.2

##### **plastic**

a material which contains as an essential ingredient a high polymer and which at some stage of its processing into finished products can be shaped by flow

[ISO 472]

#### 3.3

##### **electrode clearance**

the shortest path from the energized electrode to the ground electrode

#### 3.4

##### **electrical puncture**

a disruptive breakdown through a solid insulant

[IEV 121-03-13]

#### 3.5

##### **flashover**

an arc by-passing an insulating body [IEV 121-03-14] and occurring between electrodes and over or around, but not through, the equipment being tested

**3.6****nominal voltage**

a suitable approximate value of voltage used to designate or identify a system  
[IEV 601-01-21]

**3.7****acceptance test**

a contractual test to prove to the customer that the device meets certain conditions of its specification  
[IEV 151-04-20]

**3.8****proof test voltage**

the specified voltage that is applied to a device for the time defined under specified conditions to assure that the electrical strength of the insulation is above a specified value

**3.9****type test**

a test of one or more devices made to a certain design to show that the design meets certain specifications  
[IEV 151-04-15]

**3.10****routine test**

a test to which each individual device is subjected during or after manufacture to ascertain whether it complies with certain criteria  
[IEV 151-04-16]

**3.11****sampling test**

a test performed on a number of devices taken at random from a batch  
[IEV 151-04-17]

**3.12****withstand test voltage**

the voltage that the device must withstand without flashover, disruptive discharge, puncture or other electric failure when voltage is applied under specified conditions

**4 Composition**

The blankets shall be manufactured of elastomer or plastics and produced by seamless process. Where eyelets are provided in blankets they shall be non-conductive and shall be nominally 8 mm in diameter.

**5 Classification**

The blankets covered under this standard shall be designated as follows:

- by class as class 0, class 1, class 2, class 3 and class 4;
- by category by the addition of a suffix as shown in table 1.

Guidance as to use of blankets in relation to nominal voltage of a system is given in annex E.

Guidance as to temperature range at which blankets can be used is given in annex G.