



SLOVENSKI STANDARD SIST EN 61482-1-2:2007

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SIST-TS CLC/TS 50354:2007

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Live working - Protective clothing against the thermal hazards of an electric arc - Part 1-2: Test methods -- Method 2: Determination of arc protection class of material and clothing by using a constrained and directed arc (box test)

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Arbeiten unter Spannung - Schutzkleidung gegen die thermischen Gefahren eines elektrischen Lichtbogens - Teil 1-2: Prüfverfahren -- Verfahren 2: Bestimmung der Lichtbogen-Schutzklasse des Materials und der Kleidung unter Verwendung eines gerichteten Prüflichtbogens (Box-Test)

Travaux sous tension - Vetements de protection contre les dangers thermiques d'un arc électrique - Partie 1-2: Méthodes d'essai - Méthode 2: Détermination de la classe de protection contre l'arc de matériaux et de vêtements au moyen d'un arc dirigé et contraint (enceinte d'essai)

Ta slovenski standard je istoveten z: EN 61482-1-2:2007

ICS:

13.260	Xæ•œ[Ā ^âÁ ^ \ dā } ā ~ åæ[{	Protection against electric shock
13.340.10	Varovalna obleka	Protective clothing

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en,fr,de

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English version

**Live working -
Protective clothing against the thermal hazards of an electric arc -
Part 1-2: Test methods -
Method 2: Determination of arc protection class of material and clothing
by using a constrained and directed arc (box test)
(IEC 61482-1-2:2007)**

Travaux sous tension -
Vêtements de protection contre les
dangers thermiques d'un arc électrique -
Partie 1-2: Méthodes d'essai -
Méthode 2: Détermination de la classe
de protection contre l'arc de matériaux et
de vêtements au moyen d'un arc dirigé et
contraint (enceinte d'essai)
(CEI 61482-1-2:2007)

Arbeiten unter Spannung -
Schutzkleidung gegen die thermischen
Gefahren eines elektrischen Lichtbogens -
Teil 1-2: Prüfverfahren -
Verfahren 2: Bestimmung der
Lichtbogen-Schutzklasse des Materials
und der Kleidung unter Verwendung eines
gerichteten Prüflichtbogens (Box-Test)
(IEC 61482-1-2:2007)

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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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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 document 78/657/CDV, future edition 1 of IEC 61482-1-2, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel Unique Acceptance Procedure and was approved by CENELEC as EN 61482-1-2 on 2007-03-01.

This European Standard supersedes CLC/TS 50354:2003.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2007-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-03-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61482-1-2:2007 was approved by CENELEC as a European Standard 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 60584-1	- ¹⁾	Thermocouples - Part 1: Reference tables	EN 60584-1	1995 ²⁾
ISO 3175-2	- ¹⁾	Textiles - Professional care, drycleaning and wetcleaning of fabrics and garments - Part 2: Procedure for testing performance when cleaning and finishing using tetrachloroethene	EN ISO 3175-2	1998 ²⁾
ISO 6330	- ¹⁾	Textiles - Domestic washing and drying procedures for textile testing	EN ISO 6330	2000 ²⁾
ISO 9151	- ¹⁾	Protective clothing against heat and flame - Determination of heat transmission on exposure to flame	-	-

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¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61482-1-2

Première édition
First edition
2007-01

**Travaux sous tension –
Vêtements de protection contre les dangers
thermiques d'un arc électrique –**

Partie 1-2:

**Méthodes d'essai – Méthode 2: Détermination
de la classe de protection contre l'arc
de matériaux et de vêtements au moyen
d'un arc dirigé et contraint (enceinte d'essai)**

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**Live working –
Protective clothing against the thermal hazards
of an electric arc –**

Part 1-2:

**Test methods – Method 2: Determination
of arc protection class of material and clothing
by using a constrained and directed arc (box test)**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
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For price, see current catalogue*

CONTENTS

FOREWORD.....	7
1 Scope.....	11
2 Normative references	13
3 Terms, definitions and symbols	13
4 Principle of the test methods	23
4.1 Material box test method	23
4.2 Garment box test method	23
5 Significance and use of the test methods.....	23
6 Test apparatus	25
6.1 Test box for both methods	25
6.2 Material box test method	29
6.3 Garment box test method	33
6.4 Electric supply and electrodes	33
6.5 Electric arc characteristics.....	35
6.6 Measurement and data acquisition system	35
7 Precautions	37
8 Specimen preparation.....	37
8.1 Description of the test specimens.....	37
8.2 Laundry conditioning of test specimens	39
8.3 Pre-conditioning of the test specimens.....	39
9 Calibration.....	39
9.1 Data acquisition system pre-calibration	39
9.2 Calorimeter calibration check	39
9.3 Arc exposure calibration	39
9.4 Calibration of the electric test circuit and testing.....	41
9.5 Confirmation of test apparatus setting	41
9.6 Preparing and conditioning of the box	41
10 Apparatus care and maintenance	43
10.1 Surface reconditioning of the sensors.....	43
10.2 Care of test plate and mannequin.....	43
10.3 Care of electrodes	43
11 Test procedures	43
11.1 Test parameters	43
11.2 Number of tests.....	45
11.3 Test conditions and initial temperature	45
11.4 Specimen mounting.....	45
11.5 Specimen description	45
12 Interpretation of results	47
12.1 Heat transfer	47
12.2 Visual inspection	49
12.3 Test result	51
13 Test report.....	51
Bibliography.....	55

Figure 1 – Test box	27
Figure 2 – Test set up	29
Figure 3 – Test plate with sensors (calorimeter in mounting board)	31
Table 1 – Statistically confirmed mean values of the direct exposure incident energy	41
Table 2 – Ranges of the permissible arc energy.....	41
Table 3 – Test parameters for Classes 1 and 2.....	43
Table 4 – Human tissue tolerance to heat, second degree burn	49
Table 5 – Acceptance criteria for tests on materials	51
Table 6 – Acceptance criteria for tests on garments.....	51

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LIVE WORKING – PROTECTIVE CLOTHING
AGAINST THE THERMAL HAZARDS OF AN ELECTRIC ARC –**

**Part 1-2: Test methods –
Method 2: Determination of arc protection class of material
and clothing by using a constrained and directed arc (box test)**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 61482-1-2 has been prepared by IEC technical committee 78: Live working.

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

Enquiry draft	Report on voting
78/657/CDV	78/687/RVC

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.

A list of all parts of the IEC 61482 series, under the general title *Live working – Protective clothing against the thermal hazards of an electric arc*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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LIVE WORKING – PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF AN ELECTRIC ARC –

Part 1-2: Test methods – Method 2: Determination of arc protection class of material and clothing by using a constrained and directed arc (box test)

1 Scope

This part of IEC 61482 specifies methods to test material and garments intended for use in heat- and flame-resistant clothing for workers exposed to electric arcs. In contrast to the test methods in IEC 61482-1-1¹⁾ a directed and constrained electric arc in a low voltage circuit is used to classify material and clothing in defined arc protection classes.

The test methods specified in this document are aimed at rendering a decision whether arc thermal protection is met under defined conditions. Two protection classes are tested. Protection class 1 and protection class 2 are safety requirements covering actual risk potentials due to electric fault arcs.

NOTE 1 In practice there can be higher risks. A risk analysis should clarify the actual risk.

The test methods are not directed toward measuring the arc thermal performance value (ATPV). Methods determining the ATPV are prescribed in IEC 61482-1-1.

This standard specifies tests with which it is possible to evaluate materials and protective clothing based on the use of a directed and constrained electric arc under defined laboratory conditions (box-test). A practical scenario concerning test set-up and test conditions, electrical and constructional parameters is selected.

For the tests a low voltage procedure is used. The tests can optionally be carried out in two fixed test classes, selected by the amount of prospective short circuit current:

Class 1	4 kA;
Class 2	7 kA.

The defined duration of the electric arc is 500 ms in both test classes.

NOTE 2 These conditions represent e.g. low voltage environmental conditions during an electric fault.

Materials and clothing will be tested with two methods: the material box test method and the garment box test method.

¹⁾ IEC 61482-1, Ed.1 (2002) is currently under revision. The next edition will be numbered IEC 61482-1-1.