

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)

EESTI STANDARDI EESSÕNA

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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 61482-1-2:2014)

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 61482-1-2:2014)

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 61482-1-2:2014)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 78/1053/FDIS, future edition 2 of IEC 61482-1-2, prepared by IEC/TC 78 "Live working" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61482-1-2:2014.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-08-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-11-13

This document supersedes EN 61482-1-2:2007.

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Endorsement notice

The text of the International Standard IEC 61482-1-2:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61482-1-1	NOTE	Harmonized as EN 61482-1-1.
ISO 3175-2	NOTE	Harmonized as EN ISO 3175-2.
ISO 6330	NOTE	Harmonized as EN ISO 6330.
ISO 13688:2013	NOTE	Harmonized as EN ISO 13688:2013 (not modified).
ISO 15797	NOTE	Harmonized as EN ISO 15797.

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 9151	1995	Protective clothing against heat and flame - Determination of heat transmission on exposure to flame	-	-

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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 procedures to test *material* and *garments* intended for use in heat and flame-resistant *clothing* for workers if there is an electric arc hazard. A directed and constrained *electric arc* in a test circuit is used to classify *material* and *clothing* in two defined *arc protection classes*.

This International Standard is not dedicated toward measuring the arc rating values (ATPV¹, ELIM² or EBT³). Procedures determining these arc rating values are prescribed in IEC 61482-1-1, using an open arc for testing.

Other effects than the thermal effects of an electric arc like noise, light emissions, pressure rise, hot oil, electric shock, the consequences of physical and mental shock or toxic influences are not covered by this standard.

Protective clothing for work intentionally using an *electric arc*, e.g. arc welding, plasma torch, is not covered by this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9151:1995, *Protective clothing against heat and flame – Determination of heat transmission on exposure to flame*

3 Terms, definitions and symbols

For the purposes of this document, the following terms, definitions and symbols apply.

3.1 Terms and definitions

3.1.1

arc current

I_{arc}

current actually flowing in the electric test circuit during *arc duration* (through the arc)

¹ ATPV = *arc thermal performance value*.

² ELIM= *incident energy limit*

³ EBT= *breakopen energy threshold*