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Responsible committee: PEL/78 Tools for live working

Interested committees:

Title: Draft BS EN 50286 Electrical insulating protective clothing for low-voltage installations.

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Full document details: 20/30425973 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

August 2020

ICS

Will supersede EN 50286:1999 and all of its
amendments and corrigenda (if any)

English Version

Electrical insulating protective clothing for low-voltage installations

Vêtements de protection isolants pour installations basse
tension

Elektrisch isolierende Schutzkleidung für Arbeiten an
Niederspannungsanlagen

This draft European Standard is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2020-11-13.

It has been drawn up by CLC/TC 78.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 50286:2020) has been prepared by CLC/TC 78 “Equipment and tools for live working”.

This document is currently submitted to the Enquiry.

The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

This document will supersede EN 50286:1999 and all of its amendments and corrigenda (if any).

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

This edition includes the following significant technical changes with respect to EN 50286:1999:

- up-date of referenced documents;
- update definitions and terms;
- addition of tear resistance and tensile strength;
- addition of change due to laundering and cleaning;
- up-date of marking and instruction for use;
- up-date on testing conditions;
- update on pre-conditioning;
- up-date of conformity assessment;
- addition of Annex C on classification of defects;
- addition of Annex D on rationale of selection of defects;
- addition of Annex ZZ.

Introduction

This document complies with the electrical insulating requirements set out by CLC/TC 78 and with the non-electrical requirements set out by CEN/TC 162. This insulating clothing is recognized as a PPE according to PPE Regulation 2016-425.

Electrical insulating protective clothing was developed primarily for use by workers for work on low-voltage overhead lines.

For the moment, there is no *withstand test* applicable to products where the principle risk is of unintentional contact with live parts, and such a test is not included in the present document. However, despite this lack, it is considered that a satisfactory level of electrical protection is provided by compliance with this document for both the *proof tests* and the periodic electrical inspections.

For the moment, no test is available in relation to the risk of workers exposure to an electrical arc generated by low-voltage installations. This task is presently under study by CLC/TC 78 WG 7.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

Terms defined in Clause 3 are given in italic print throughout this document.

1 Scope

This document is applicable to *electrical insulating protective clothing* used by skilled persons when they are working on or near live parts of low-voltage installations at nominal voltages up to 500 V AC or 750 V DC.

The purpose of this clothing when used in conjunction with other PPE, such as boots and gloves etc., is to prevent dangerous current from passing through persons when there is a risk of unintentional contact with several live parts located in and around the working area. Where the risk of unintentional contact with live parts is restricted e.g. with live parts in front of the worker, the wearing of this clothing is not essential.

The products designed and manufactured according to this document contribute to the safety of the users provided they are used by skilled persons, in accordance with safe methods of work and the instructions for use.

NOTE Some restrictions on the use of this clothing can exist in areas with hot climatic conditions.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 343:2019, *Protective clothing - Protection against rain*

EN 60060-1:2010, *High-voltage test techniques - Part 1: General definitions and test requirements (IEC 60060-1:2010)*

EN 60060-2:2011, *High-voltage test techniques - Part 2: Measuring systems (IEC 60060-2:2010)*

EN 60529:1991,¹ *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN ISO 811:2018, *Textiles - Determination of resistance to water penetration - Hydrostatic pressure test (ISO 811:2018)*

EN ISO 4674-1:2016, *Rubber- or plastics-coated fabrics - Determination of tear resistance - Part 1: Constant rate of tear methods (ISO 4674-1:2016)*

EN ISO 5077:2008, *Textiles - Determination of dimensional change in washing and drying (ISO 5077:2007)*

EN ISO 11092:2014, *Textiles - Physiological effects - Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test) (ISO 11092:2014)*

EN ISO 13688:2013, *Protective clothing - General requirements (ISO 13688:2013)*

EN ISO 13934-1:2013, *Textiles - Tensile properties of fabrics - Part 1: Determination of maximum force and elongation at maximum force using the strip method (ISO 13934-1:2013)*

EN ISO 13937-2:2000, *Textiles - Tear properties of fabrics - Part 2: Determination of tear force of trouser-shaped test specimens (Single tear method) (ISO 13937-2:2000)*

EN ISO 15025:2016, *Protective clothing - Protection against flame - Method of test for limited flame spread (ISO 15025:2016)*

IEC 60050-651, *International Electrotechnical Vocabulary (IEV) - Part 651: Live working*

¹ As impacted by EN 60529:1991/A2:2013.