



SLOVENSKI STANDARD SIST EN 60855:2001

01-september-2001

Izolacijske s peno polnjene cevi in polne palice za delo pod napetostjo (IEC 60855:1985, spremenjen)

Insulating foam-filled tubes and solid rods for live working

Isolierende schaumgefüllte Rohre und massive Stäbe zum Arbeiten an unter Spannung stehenden Teilen

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Tubes isolants remplis de mousse et tiges isolantes pleines pour travaux sous tension

Ta slovenski standard je istoveten z: EN 60855:1996

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ICS:

13.260 Protection against electric shock. Live working

SIST EN 60855:2001

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60855

June 1996

ICS 13.340.20

Supersedes HD 496 S1:1988

Descriptors: Live working, insulating foam-filled tube, insulating solid rod, making, characteristic, test

English version

Insulating foam-filled tubes and solid rods for live working
(IEC 855:1985, modified)

Tubes isolants remplis de mousse et
tiges isolantes pleines pour travaux sous
tension
(CEI 855:1985, modifiée)

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This European Standard was approved by CENELEC on 1996-03-05. 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, B - 1050 Brussels

Foreword

The text of the International Standard IEC 855:1985, prepared by IEC TC 78, Tools for live working, was approved by CENELEC as HD 496 S1 on 1987-12-02.

This Harmonization Document, together with common modifications prepared by the Technical Committee CENELEC TC 78, was submitted to the formal vote and was approved by CENELEC as EN 60855 on 1996-03-05.

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) 1997-03-01
- latest date by which national standards conflicting with the EN have to be withdrawn (dow) 1997-03-01

For products which have complied with HD 496 S1 S1:1988 before 1997-03-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2002-03-01.

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given only for information.

In this standard, annexes A to D and annex ZA and ZC are normative, annex ZB is informative.

Annexes ZA, ZB and ZC have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 855:1985 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

CONTENTS

Replace "16 Acceptance" by "16 Acceptance tests"

Replace "appendix" by "annex" and add "(normative)" for the four annexes.

Add:

17 Quality assurance plan

Annex ZA (normative) - Sampling procedure

Annex ZB (informative) - Acceptance tests

Annex ZC (normative) - Normative references to international publications with their corresponding European publications

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SECTION THREE - TYPE TESTS

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5 General

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Add in the second paragraph "(according to clause 6)" after "dimensional check".

7 Dye penetration test

Delete "(about 50 Torr)".

8 Dielectrical tests

8.1.3 Replace the second paragraph by:

"At the end of this period, the test pieces shall remain in an atmosphere of 93 % relative humidity until the moment of the dielectric test. Then they are to be tested upon return to the ambient temperature of the areas, without intentional prolongation, and after the test pieces have been lightly wiped with a dry cloth, the current I_2 and phase angle Φ_2 are measured under the same conditions as I_1 and Φ_1 ."

8.2.3 Add "(5 °C)" at the end of the last dash.

9 Mechanical tests

9.2 Replace in the fourth paragraph "1 %" by "10 %".

SECTION FOUR - ROUTINE TEST AND SAMPLING TESTS

12 Sampling tests

Add "(see annex ZA)" at the end of the clause.

SECTION FIVE - SPECIAL CLAUSES

16 Acceptance

Replace the text of the clause by:

16 Acceptance tests

If the customer requests from the manufacturer additional requirements and tests, the manufacturer shall keep all additional test results for inspection by the customer (see annex ZB).

Add the following new clause 17:

17 Quality assurance plan

In order to assure the delivery of products that meet this standard, the manufacturer shall employ an approved quality assurance plan that complies with the provisions of the ISO 9000 series.

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The quality assurance plan shall ascertain that the products meet the requirements contained in this standard.

In the absence of an accepted quality assurance plan as specified above the sampling tests contained in this standard shall be carried out (see annex ZA).

Annexes

Replace the title "Appendix A" by:

Annex A
(normative)

Add in figure A1, "Measuring equipment impedance" to " $\leq 10\ 000\ \Omega$ ".

Replace the headings of the appendices by:

Annex B
(normative)

Annex C
(normative)

Annex D
(normative)

Add the following new annexes:

Annex ZA
(normative)

Sampling procedure

ZA.1 General

The sampling procedure does not follow in its entirety the sampling procedure developed in IEC 410:1973. The products covered by this standard do not lend themselves to the application of the above mentioned standard, due to their nature.

ZA.2 Classification of defects

Defects are classified as major or minor (see definition in IEC 410).

The defects are classified according to table ZA.1.

Table ZA.1 - Classification of defects

Name of test	Subclause	Major	Minor
Dimensional test	6.2	X	
Bending test	9.1	X	
Torsion test	9.2	X	
Crushing test	9.3	X	
Dielectric on material	8.1	X	
Dielectric wet test	8.2	X	

ZA.3 General sampling plan

ZA.3.1 Plans for major defects

Table ZA.2 - Major defects

Batch or lot size	Sample size	Acceptance number	Rejection number
2 to 90 (300 to 13 500 m)	5	1	2
91 to 500 (13 500 to 75 000 m)	8	2	3
NOTE 1: For a given batch, the sampling elementary unit is defined as equal to 150 m of tube with a well-defined type, diameter and category.			
NOTE 2: The tests are to be carried on parts of tubes taken at random among the batch.			

Annex ZB
(informative)

Acceptance tests

As defined in IEV 151-04-20, an acceptance test is a contractual test to prove to the customer that the device meets certain conditions of its specification. These tests may be carried out on every unit (routine tests) or on a sampling of the units (sampling tests).

If a customer indicates in this specification that the device must meet this standard only, the acceptance tests are those (both routine and sampling) which are specified in this document.

The customer may wish to witness the tests, have someone witness them, or simply accept the results of the tests as carried out by the manufacturer. He may also specify that the tests be carried out in an independent laboratory of his choosing or even in his own laboratory.

Further, the customer may specify additional tests or larger sampling sizes, when he is purchasing from a new manufacturer, because he has experienced problems with a particular manufacturer, or he is purchasing a new product or a new design.

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Annex ZC (normative)

Normative references to international publications
with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 50(151)	1978	International Electrotechnical Vocabulary (IEV) Chapter 151: Electrical and magnetic devices	-	-
IEC 60-1	1973 ¹⁾	High-voltage test techniques Part 1: General definitions and test requirements		-
IEC 212	1971	Standard conditions for use prior to and during the testing of solid electrical insulating materials	HD 437 S1	1984
IEC 743	1983	Terminology for tools and equipment to be used in live working	EN 60743 ²⁾	1996

1) IEC 60-1:1989 is harmonized as HD 588 S1:1991.

2) EN 60743 includes A1:1995 to IEC 743.

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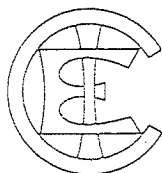
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for live working



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