

**SLOVENSKI STANDARD**  
**SIST HD 505.4.2 S1:1998**

**01-februar-1998**

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**Common test methods for insulating and sheathing materials of electric cables - Part 4: Methods specific to polyethylene and polypropylene compounds - Section 2: Elongation at break after pre-conditioning - Wrapping test after thermal ageing in air - Measurement of mass increase - Long-term stability test (Appendix A) - Test method for catalysed oxidative degradation (Appendix B)**

Common test methods for insulating and sheathing materials of electric cables -- Part 4: Methods specific to polyethylene and polypropylene compounds -- Section 2: Elongation at break after pre-conditioning - Wrapping test after thermal ageing in air - Measurement of mass increase - Long-term stability test (Appendix A) - Test method for copper-catalysed oxidative degradation (Appendix B)

[SIST HD 505.4.2 S1:1998](http://standards.iteh.ai/SIST/505.4.2/S1/1998)

Allgemeine Prüfungen für Isolier- und Mantelwerkstoffe für Kabel und isolierte Leitungen -- Teil 4: Besondere Methoden für Polyäthylen und Polypropylen Compounds -- Hauptabschnitt 2: Reißdehnung nach Konditionierung - Wickelprüfung nach Konditionierung - Wickelprüfung nach Alterung in Luft - Messung der Masseaufnahme - Langzeit-Stabilitätsprüfung (Anhang A) - Prüfungen für kathalytische Oxydation durch Kupfer (Anhang B)

Méthodes d'essais communes pour les matériaux d'isolation et de gainage des câbles électriques -- Partie 4: Méthodes spécifiques pour les mélanges polyéthylène et polypropylène -- Section 2: Allongement à la rupture après préconditionnement - Essai d'enroulement après préconditionnement - Essai d'enroulement après vieillissement thermique dans l'air - Mesure de l'augmentation de masse - Essai de stabilité à long terme (annexe A) - Méthode d'essai pour l'oxydation catalytique par le cuivre (annexe B)

**Ta slovenski standard je istoveten z: HD 505.4.2 S1:1992**

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**ICS:**

29.035.20	Plastični in gumeni izolacijski materiali	Plastics and rubber insulating materials
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**SIST HD 505.4.2 S1:1998**

**en**

**iTeh STANDARD PREVIEW**  
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[SIST HD 505.4.2 S1:1998](https://standards.iteh.ai/catalog/standards/sist/938b56e8-fce0-4736-b58c-f537d5a28e93/sist-hd-505-4-2-s1-1998)

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UDC 621.315.6-036.742.2/.3:620.193.2

Descriptors: Electric cable, insulated cable, electrical insulation, outer sheath, polyethylene, polypropylene, test method, elongation at break, stability test, oxydation resistance, copper

## ENGLISH VERSION

## COMMON TEST METHODS FOR INSULATING AND SHEATHING MATERIALS OF ELECTRIC CABLES

PART 4: METHODS SPECIFIC TO POLYETHYLENE AND POLYPROPYLENE COMPOUNDS

SECTION TWO: ELONGATION AT BREAK AFTER PRE-CONDITIONING - WRAPPING TEST AFTER PRE-CONDITIONING - WRAPPING TEST AFTER

THERMAL AGEING IN AIR - MEASUREMENT OF MASS INCREASE -

LONG-TERM STABILITY TEST (APPENDIX A) - TEST METHOD

FOR COPPER-CATALYSED OXIDATIVE DEGRADATION (APPENDIX B)

(IEC 811-2-4:1990)

Méthodes d'essais communes pour les matériaux d'isolation et de gainage des câbles électriques  
Quatrième partie: Méthodes spécifiques pour les mélanges polyéthylène et polypropylène  
Section deux: Allongement à la rupture après préconditionnement - Essai d'enroulement après préconditionnement - Essai d'enroulement après vieillissement thermique dans l'air - Mesure de l'augmentation de masse - Essai de stabilité à long terme (annexe A) - Méthode d'essai pour l'oxydation catalytique par le cuivre (annex B)  
(CEI 811-4-2:1990)

Allgemeine Prüfungen für Isolier- und Mantelwerkstoffe für Kabel und isolierte Leitungen  
Leitungen - Teil 4: Besondere Methoden für Polyäthylen und Polypropylen Compounds  
Hauptabschnitt Zwei: Reißdehnung nach Konditionierung - Wickelprüfung nach Konditionierung - Wickelprüfung nach Alterung in Luft - Messung der Masseaufnahme - Langzeit-Stabilitätsprüfung (Anhang A) - Prüfungen für kathalytische Oxydation durch Kupfer (Anhang B)  
(IEC 811-4-2:1990)

STANDARD REVIEW  
(standards)

SIST HD 505.4.2 S1:1998  
<https://standards.itec.ai/catalog/standards/sist/50542s1-1998/iec-811-4-2-1990>  
50542s1-1998  
50542s1-1998

This Harmonization Document was approved by CENELEC on 1991-12-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

Up-to-date lists and bibliographical references concerning national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 811-4-2:1990 could be accepted without textual changes, has shown that no CENELEC common modifications were necessary for the acceptance as Harmonization Document.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as HD 505.4.2 S1 on 10 December 1991.

The following dates were fixed:

- latest date of announcement  
of the HD at national level (doa) 1992-06-01
- latest date of publication of  
a harmonized national standard (dop) 1992-12-01
- latest date of withdrawal of  
conflicting national standards (dow) 1992-12-01

For products which have complied with the relevant national standard before 1992-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1997-12-01.

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

In this standard, annex ZA is normative.

<https://standards.iteh.ai/catalog/standards/sist/938b56e8-fce0-4736-b58c->

[f537d5a28e93/sist-hd-505-4-2-s1-1998](https://standards.iteh.ai/catalog/standards/sist/938b56e8-fce0-4736-b58c-f537d5a28e93/sist-hd-505-4-2-s1-1998)

ENDORSEMENT NOTICE

The text of the International Standard IEC 811-4-2:1990 was approved by CENELEC as a Harmonization Document without any modification.



## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC <u>Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
811-1-3	1985	Common test methods for insulating and sheathing materials of electric cables Part 1: Methods for general application Section Three - Methods for determining the density - Water absorption tests Shrinkage test	HD 505.1.3 S1	1988
811-4-1	1985	Part 4: Methods specific to polyethylene and polypropylene compounds Section One - Resistance to environmental stress cracking - Wrapping test after thermal ageing in air - Measurement of the melt flow index - Carbon black and/or mineral filler content measurement in PE	HD 504.4.1 S1*	1988
811-5-1	1989	Part 5: Methods specific to filling compounds - Section One - Drop-point Separation of oil - Lower temperature brittleness - Total acid number - Absence of corrosive components - Permittivity at 23 °C - D.C. resistivity at 23 °C and 100 °C	HD 505.5.1 S1	1992

## Other publications

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ISO 188:1982 - Rubber, vulcanized - Accelerated ageing or heat-resistance tests  
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\* superseded by HD 505.4.1 S2:1990, which is based on IEC 811-4-1:1985 + A1:1988