



**SLOVENSKI STANDARD**  
**SIST HD 624.3 S1:1996/A2:1996**

**01-maj-1996**

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**Materials used in communication cables - Part 3: PE solid insulation**

Materials used in communication cables -- Part 3: PE insulation

Werkstoffe für Kommunikationskabel -- Teil 3: PE-Isoliermischungen

Matériaux utilisés dans les câbles de communication -- Partie 3: Polyéthylène pour enveloppes isolantes

**(standards.iteh.ai)**

**Ta slovenski standard je istoveten z: HD 624.3 S1:1994/A2:1994**

<https://standards.iteh.ai/catalog/standards/sist/0fea12b0-d245-4849-aa43-169772177bbb/sist-hd-624-3-s1-1996-a2-1996>

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**ICS:**

29.035.20	Plastični in gumeni izolacijski materiali	Plastics and rubber insulating materials
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**SIST HD 624.3 S1:1996/A2:1996**                      **en**

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HARMONIZATION DOCUMENT

HD 624.3 S1/A2

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

November 1994

UDC 621.315.3:621.315.616-036.742  
ICS 29.060.20

Descriptors: Communication cables, insulation compounds, solid polyethylene

## ENGLISH VERSION

Materials used in communication cables  
Part 3: PE insulation

Matériaux utilisés dans les câbles de communication  
Partie 3: Polyéthylène pour enveloppes isolantes

Werkstoffe für Kommunikationskabel  
Teil 3: PE-Isoliermischungen

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This amendment A2 modifies the Harmonization Document HD 624.3 S1:1994. It was approved by CENELEC on 1994-07-05. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this amendment 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 amendment exists in three official versions (English, French and 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

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Ref. No. HD 624.3 S1:1994/A2:1994 E

## Foreword

This amendment to the Harmonization Document was prepared by WG 2 of CENELEC Technical Committee TC 46X, Communication cables.

It was submitted to the Unique Acceptance Procedure (UAP) in December 1993 and was approved by CENELEC as amendment A2 to HD 624.3 S1 on 1994-07-05.

NOTE: There is no amendment A1 to HD 624.3 S1.

The following dates were fixed:

- latest date of announcement of the amendment at national level (doa) 1995-01-15
- latest date of publication of a harmonized national standard (dop) 1995-07-15
- latest date of withdrawal of conflicting national standards (dow) 1995-07-15

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Amendment A2 to HD 624.3 S1

**iTeh STANDARD PREVIEW**

Add table 2 on PE cellular insulation.

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Table 2 : PE cellular insulation (including foam-skin)

Characteristics		Test method	Unit	Grades		
				A	B	C*
1	Maximum rated temperature of cable for which the compound can be used		° C	70	70	70
2	Density **	HD 505.1.3 § 8	g/cm <sup>3</sup>	To be recorded	To be recorded	To be recorded
3	Melt Flow Index **	HD 505.4.1 § 10	g/10 min	To be recorded	To be recorded	To be recorded
4	Mechanical characteristics	HD 505.1.1 § 9.1				
4.1	Tensile strength - median,min.		MPa	3,5	5	8
4.2	Elongation at break - median,min.		%	125	150	300
5	Shrinkage - temperature - duration Result to be obtained, max.	HD 505.1.3 § 10	° C h %	100 ± 2 1 5	100 ± 2 1 5	100 ± 2 1 5
6	Elongation at break after ageing for unfilled cables - temperature - duration Result to be obtained - median,min.	HD 505.1.2 § 8.1	° C h %	80 ± 2*** 7 x 24 125	80 ± 2*** 7 x 24 125	100 ± 2 7 x 24 200
7	Performances after pre-conditioning for filled cables - temperature - duration	HD 505.4.2 § 8.2	° C h	60/70 ± 2 7 x 24	60/70 ± 2 7 x 24	60/70 ± 2 7 x 24
7.1	Elongation at break Result to be obtained - median,min.	HD 505.4.2 § 8	%	100	100	200
7.2	Wrapping (note 1) Result to be obtained after exposure in wrapped conditions - temperature - duration	HD 505.4.2 § 9	° C h	no crack 70 ± 2 24	no crack 70 ± 2 24	no crack 70 ± 2 24

\* for particular foam-skin application

\*\* to be given by the supplier on the basic resins (cellular and skin)

\*\*\* when cellular part is based on HD resin the ageing temperature shall be 100° C

Table 2 (concluded)

Characteristics		Test method	Unit	Grades		
				A	B	C*
8	Wrapping after ageing - temperature - duration Result to be obtained	HD 505.4.2 § 10	° C h	100 ± 2	100 ± 2	100 ± 2
				14 x 24 no crack	14 x 24 no crack	14 x 24 no crack
9	Long Term Stability Test (note 2) - temperature - duration Result to be obtained	HD 505.4.2 App. A	° C h	-	-	100 ± 2 42 x 24 no crack
10	Mass increase for filled cables (note 3) - temperature - duration Result to be obtained, max.	HD 505.4.2 § 11	° C h %	60/70 ± 2	60/70 ± 2	60/70 ± 2
				10 x 24 18	10 x 24 18	10 x 24 15

**Note 1** Only to be carried out if elongation at break cannot be done.

**Note 2** For monitoring both raw materials and cables, OIT test may be performed in accordance with HD 505-4-2 Appendix B with typical minimum value of 15 min. Alternatively, the test may be carried out prior to extrusion on granules in presence of a piece of copper conductor with typical minimum value of 30 min.  
(standards.it.ch)

For information only, OIT after pre-conditioning may be recorded.

**Note 3** Only to be performed on foam-skin.  
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<https://standards.it.ch.ar/catalog/standards/sist/0fea12b0-d245-4849-aa43-169772f77bbb/sist-hd-624-3-s1-1996-a2-1996>