



SLOVENSKI STANDARD SIST EN 50290-2-22:2002

01-september-2002

BUXca Yý U
SIST HD 624.2 S1:1996

Communication cables -- Part 2-22: Common design rules and construction - PVC sheathing compounds

Kommunikationskabel -- Teil 2-22: Gemeinsame Regeln für Entwicklung und Konstruktion - PVC-Mantelmischungen

Câbles de communication -- Partie 2-22: Règles de conception communes et de construction - Mélanges en PVC pour gainage

Ta slovenski standard je istoveten z: EN 50290-2-22:2001

ICS:

- 29.035.20 Úlæ cã } ã Á { ^ } ã [|æã \ã Plastics and rubber insulating materials
- 33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

SIST EN 50290-2-22:2002 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 50290-2-22:2002

<https://standards.iteh.ai/catalog/standards/sist/7de0528d-7d30-4ca7-a841-691a311fca41/sist-en-50290-2-22-2002>

EUROPEAN STANDARD

EN 50290-2-22

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2001

ICS 29.035.20; 33.120.10

Supersedes HD 624.2 S1:1994

English version

Communication cables
Part 2-22: Common design rules and construction -
PVC sheathing compounds

Câbles de communication
Partie 2-22: Règles de conception
communes et de construction -
Mélanges en PVC pour gainage

Kommunikationskabel
Teil 2-22: Gemeinsame Regeln für
Entwicklung und Konstruktion -
PVC-Mantelmischungen

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This European Standard was approved by CENELEC on 2001-05-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, 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

This European Standard was prepared by a joint working group of the Technical Committees CENELEC TC 46X, Communication cables, and CENELEC TC 86A, Optical fibres and optical fibre cables.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50290-2-22 on 2001-05-01.

This European Standard supersedes HD 624.2 S1:1994.

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) 2002-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2004-04-01

This European Standard has been prepared under the European Mandate M/212 given to CENELEC by the European Commission and the European Free Trade Association.

(standards.iteh.ai)

SIST EN 50290-2-22:2002

<https://standards.iteh.ai/catalog/standards/sist/7de0528d-7d30-4ca7-a841-691a311fca41/sist-en-50290-2-22-2002>

1 Scope

This Part 2-22 of EN 50290 gives specific requirements for PVC sheathing compounds used for communication cables.

It is to be read in conjunction with Part 2-20 of EN 50290.

2 Normative references

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).

- | | |
|-------------------|---|
| EN 60811-1-1:1995 | Insulating and sheathing materials of electric and optical cables - Common test methods -- Part 1-1: General application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties (IEC 60811-1-1:1993) |
| EN 60811-1-2:1995 | Insulating and sheathing materials of electric cables - Common test methods Part 1-2: General application -- Thermal ageing methods (IEC 60811-1-2:1985 + corr. May 1986 + A1:1989) |
| EN 60811-1-3:1995 | Insulating and sheathing materials of electric and optical cables - Common test methods -- Part 1-3: General application - Methods for determining the density - Water absorption tests - Shrinkage test (IEC 60811-1-3:1993) |
| EN 60811-1-4:1995 | Insulating and sheathing materials of electric and optical cables - Common test methods -- Part 1-4: General application - Tests at low temperature (IEC 60811-1-4:1985 + corr. May 1986 + A1:1993) |
| EN 60811-3-1:1995 | Insulating and sheathing materials of electric and optical cables - Common test methods -- Part 3-1: Methods specific to PVC compounds - Pressure test at high temperature - Tests for resistance to cracking (IEC 60811-3-1:1985 + corr. May 1986) |
| EN 60811-3-2:1995 | Insulating and sheathing materials of electric cables - Common test methods Part 3: Methods specific to PVC compounds -- Section 2: Loss of mass test - Thermal stability test (IEC 60811-3-2:1985 + corr. May 1986 + A1:1993) |
| ISO 868:1985 | Plastics and ebonite -- Determination of indentation hardness by means of a durometer (Shore hardness) |

3 Requirement

In case of specific applications, additional performances could be needed. Relevant test methods and requirements shall be included in the detail specification of the cable.

Table 1 - PVC sheathing compounds

Characteristics		Test method	Unit	Grades	
				TM51	TM52
1	Maximum rated temperature at cable for which the compound can be used		°C	70	70
2	Density	EN 60811-1-3 clause 8	g/cm ³	To be recorded	
3	Hardness	ISO 868	Shore A	To be recorded	
4	Mechanical characteristics				
4.1	In state of delivery	EN 60811-1-1			
4.11	Tensile strength – median, min.	9.2	MPa	12,5	10
4.12	Elongation at break – median, min.		%	125	150
4.2	After ageing Ageing conditions – temperature – duration	EN 60811-1-2 8.1	°C h	80 7 x 24	80 7 x 24
4.21	Tensile strength – median, min. – variation, max.		MPa %	12,5 ± 20	10 ± 20
4.22	Elongation at break – median, min. – variation, max.		% %	125 ± 20	150 ± 20
5	Loss of mass Test conditions – temperature – duration Result to be obtained, max.	EN 60811-3-2 8.2	°C h mg/cm ²	80 ± 2 7 x 24 2,0	80 ± 2 7 x 24 2,0
6	Heat shock test Test conditions – temperature – duration Result to be obtained	EN 60811-3-1 9.2	°C h	150 ± 2 1 No crack	150 ± 2 1 No crack

Table 1 (continued)

Characteristics		Test method	Unit	Grades	
				TM51	TM52
7	Pressure test at high temperature Test conditions – temperature – duration Result to be obtained - depth of indentation median, max.	EN 60811-3-1 8.2	° C h %	80 ± 2 4 50	70 ± 2 4 50
8	Behaviour at low temperature				
8.1	Bending test at low temperature – temperature Result to be obtained	EN 60811-1-4 8.2	° C	– 15 ± 2 No crack	– 15 ± 2 No crack
8.2	Elongation test at low temperature – temperature Elongation, min.	EN 60811-1-4 8.4	° C %	– 15 ± 2 20	– 15 ± 2 20
8.3	Impact test at low temperature (if required in the detail specification of the cable) – temperature Result to be obtained	EN 60811-1-4 8.5	° C	– 15 ± 2 No crack	– 15 ± 2 No crack

SIST EN 50290-2-22:2002

<https://standards.iteh.ai/catalog/standards/sist/7de0528d-7d30-4ca7-a841-691a311fca41/sist-en-50290-2-22-2002>