



SLOVENSKI STANDARD
SIST EN 50290-2-22:2002/A1:2007

01-november-2007

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

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Ta slovenski standard je istoveten z: EN 50290-2-22:2002/A1:2007

<https://standards.iteh.ai/catalog/standards/sist/f9a2f007-de91-4756-9efa-47c8d818a7c7/sist-en-50290-2-22-2002-a1-2007>

ICS:

29.035.20 Új... { ^ } ... Plastics and rubber insulating materials

33.120.10 Koaksialni kabli. Valovodi Coaxial cables. Waveguides

SIST EN 50290-2-22:2002/A1:2007 en,fr,de

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EUROPEAN STANDARD

EN 50290-2-22/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2007

ICS 29.035.20; 33.120.10

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

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This amendment A1 modifies the European Standard EN 50290-2-22:2001; it was approved by CENELEC on 2007-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 amendment to the European Standard EN 50290-2-22:2001 was prepared by the Technical Committee CENELEC TC 46X, Communication cables.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 50290-2-22:2001 on 2007-03-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2008-03-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2010-03-01

This amendment introduces respectively new PVC sheathing compound Grade for high temperature and oil resistance.

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1 Scope

Add after the first paragraph:

For cables with a maximum rated temperature of 90 °C, compound of Grade TM53 shall be used and it shall comply with the requirements described in Table 1.

For oil resistant PVC cables, sheathing compound Grade TM54 or TM55 chosen according to the environmental conditions shall be used and it shall comply with the requirements described in Table 1.

3 Requirement

Add after the first paragraph:

If lead free PVC is required, the lead content shall be less than 400 ppm, measured according to EN 50414.

Replace Table 1 by the following to introduce Grades TM53, TM54 and TM55:

Table 1 - PVC sheathing compounds

Characteristics	Test method	Unit	Grades				
			TM51	TM52	TM53	TM54 ^a	TM55 ^b
1	Maximum rated temperature at cable for which the compound can be used	°C	70	70	90	70	70
2	Density	g/cm ³	To be recorded				
3	Hardness	Shore A	To be recorded				
4	Mechanical characteristics						
4.1	In state of delivery						
4.11	Tensile strength – median, min.	MPa	12,5	10	15	10	10
4.12	Elongation at break – median, min.	%	125	150	150	150	150
4.2	After ageing						
	Ageing conditions – temperature	°C	80	80	135 ± 2	80 ± 2	80 ± 2
	– duration	h	7 x 24	7 x 24	14 x 24	7 x 24	7 x 24
4.21	Tensile strength – median, min.	MPa	12,5	10	15	10	10
	– variation, max.	%	± 20	± 20	± 25	± 20	± 20
4.22	Elongation at break – median, min.	%	125	150	150	150	150
	– variation, max.	%	± 20	± 20	± 25	± 20	± 20

Table 1 - PVC sheathing compounds (continued)

Characteristics		Test method	Unit	Grades				
				TM51	TM52	TM53	TM54 ^a	TM55 ^b
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	115 ± 2 14 x 24 1,5	80 ± 2 7 x 24 2	80 ± 2 7 x 24 2
6	Heat shock test Test conditions – temperature – duration Result to be obtained	EN 60811-3-1 9.2	° C h	150 ± 2 1 No cracks	150 ± 2 1 No cracks	150 ± 2 1 No cracks	150 ± 2 1 No cracks	150 ± 2 1 No cracks
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	90 ± 2 4 50	70 ± 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 cracks	– 15 ± 2 No cracks	– 15 ± 2 No cracks	– 15 ± 2 No cracks	– 15 ± 2 No cracks
8.2	Elongation test at low temperature – temperature Elongation, min.	EN 60811-1-4 8.4	° C %	– 15 ± 2 20	– 15 ± 2 20	- -	– 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 cracks	– 15 ± 2 No cracks	– 15 ± 2 No cracks	– 15 ± 2 No cracks	– 15 ± 2 No cracks
9	Thermal stability at 200 °C, min.	EN 60811-3-2 Clause 9	min	-	-	240	-	-
10	Mineral oil immersion test Test conditions – temperature – duration Results to be obtained after oil immersion Tensile strength – variation, max. Elongation at break – variation, max.	EN 60811-2-1 Clause 10	° C h % %	- - - -	- - - -	- - - -	70 4 ± 30 ± 30	90 7 x 24 ± 25 ± 25
^a	Type TM54 for temporary contacts with oils.							
^b	Type TM55 for continuous storage in oils.							