SLOVENSKI STANDARD
SIST EN 50290-2-26:2002/A1:2007

01-november-2007

Komunikacijski kabli ï 2-26. del: Skupna pravila za naļ rtovanje in konstrukcija ï Brezhalogenske izolacijske zmesi, ki zavirajo gorenje

Communication cables -- Part 2-26: Common design rules and construction - Halogen free flame retardant insulation compounds

Kommunikationskabel -- Teil 2-26: Gemeinsame Regeln für Entwicklung und Konstruktion - Halogenfreie flammwidrige Isoliermischungen

Câbles de communication -- Partie 2-26: Règles de conception communes et construction - Mélanges pour enveloppes isolantes sans halogene et avec propagation retardée de flamme

Ta slovenski standard je istoveten z: **EN 50290-2-26:2002/A1:2007**

ICS:

29.035.20	Plastiļ ni in gumeni izolacijski materiali	Plastics and rubber insulating materials
33.120.10	Koaksialni kabli. Valovodi	Coaxial cables. Waveguides

SIST EN 50290-2-26:2002/A1:2007 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50290-2-26/A1

June 2007

ICS 29.035.20; 33.120.10

English version

Communication cables - Part 2-26: Common design rules and construction - Halogen free flame retardant insulation compounds

Câbles de communication - Partie 2-26: Règles de conception communes et construction - Mélanges pour enveloppes isolantes sans halogène et avec propagation retardée de flamme

Kommunikationskabel - Teil 2-26: Gemeinsame Regeln für Entwicklung und Konstruktion - Halogenfreie flammwidrige Isoliermischungen

This amendment A1 modifies the European Standard EN 50290-2-26:2002; 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.

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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 50290-2-26:2002 was prepared by a joint working group of the Technical Committee CENELEC TC 46X, Communication cables, and the Technical Committee 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 amendment A1 to EN 50290-2-26:2002 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 a new halogen free insulation compound grade for high temperature.

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3 Requirements

Delete the existing table and replace it by the following table:

Table 1 – Halogen free insulation compounds for flame retardant cables

Characteristics		Test method	Unit	Grades		
				Cross linked insulation	Thermoplastic insulation	Thermoplastic insulation
1	Maximum rated temperature at cable for which the compound can be used		°C	90	70	90
2	Mechanical characteristics					
2.1	In state of delivery	EN 60811-1-1				
2.11	Tensile strength	9.1				
	- median, min.		MPa	10	9	9
2.12	Elongation at break					
	- median, min.		%	125	125	125
2.2	After ageing	EN 60811-1-2				
		8.1				
	Ageing conditions					
	- temperature		°C	135 ± 2	100 ± 2	110 ± 2
	- duration		h	7 x 24	7 x 24	7 x 24
2.21	Tensile strength					
	- variation, max.		%	± 30	± 30	± 30
2.22	Elongation at break					
	- median, min.		%	–	100 [a]	100
	- variation, max.		%	± 30	± 40	± 40
3	Heat shock	EN 60811-3-1		Not applicable	Not applicable	Not applicable
		9.1				
	Test conditions					
	- temperature		°C	–	–	–
	- duration		h	–	–	–
	Result to be obtained					
4	Behaviour at low temperature					
	Bending at low temperature	EN 60811-1-4				
		8.1				
	Test conditions					
	- temperature		°C	- 15 ± 2	- 15 ± 2	- 15 ± 2
	Result to be obtained			No crack	No crack	No crack
5	Shrinkage	EN 60811-1-3				
		Clause 10				
	Test conditions					
	- sample length		mm	200	200	200
	- temperature		°C	100	100	100
	- duration		h	1	1	1
	Result to be obtained, max.		%	4	4	4

Table 1 – Halogen free insulation compounds for flame retardant cables *(continued)*

Characteristics		Test method	Unit	Grades		
				Cross linked insulation	Thermoplastic insulation	Thermoplastic insulation
6	Pressure at high temperature Test conditions - temperature - duration (for all values of cable diameter) Result to be obtained - depth of indentation median, max	EN 60811-3-1 8.1	 °C h %	Not applicable – – –	 80 ± 2 4 50	 90 ± 2 4 50
7	Oxygen Index (see note 1)	HD 405.3	%			
8	Corrosivity	IEC 60754-2		To meet	To meet	To meet
9	Smoke opacity (see note 2)					
10	Toxicity	Under consideration				
11	Volume resistivity, min. - at maximum rated temperature at cable - at 20 °C Test conditions - sample length, min. - immersion duration	Appended	Ω.m m h	10^8 (provisional value) 10^{10} (provisional value) 5 2	10^8 (provisional value) 10^{10} (provisional value) 5 2	10^8 (provisional value) 10^{10} (provisional value) 5 2
12	Dielectric constant (see note 3)	IEC 60250			Typical value (under consideration)	Typical value (under consideration)
13	Dissipation factor (see note 3)	IEC 60250			Typical value (under consideration)	Typical value (under consideration)
14 14.1 14.2	Hot set test Test conditions - temperature - duration - load Result to be obtained - elongation, max. - permanent set, max.	EN 60811-2-1 Clause 9	 °C min N/cm^2 % %	 200 ± 3 15 20 175 25	Not applicable	Not applicable

[a] Provisional value.

NOTE 1 Oxygen index measurement has been found to be a suitable indicator to guide selection and monitoring of materials used in cables which have to meet the fire performance tests specified in the relevant cable specification.

NOTE 2 For selection of materials used in cables, IEC 60695-6 may be considered.

NOTE 3 When required the dielectric constant and dissipation factor, shall be measured at 1 MHz, and at other required values. Typical values are under consideration.