SLOVENSKI STANDARD
SIST EN 50290-2-27:2002/A1:2007

01-november-2007

Komunikacijski kabli ï 2-27. del: Skupna pravila za naļ rtovanje in konstrukcija ï Brezhalogenske termoplastiļ ne izolacijske zmesi, ki zavirajo gorenje, za oplaģļ enje

Communication cables -- Part 2-27: Common design rules and construction - Halogen free flame retardant thermoplastic sheathing compounds

Kommunikationskabel -- Teil 2-27: Gemeinsame Regeln für Entwicklung und Konstruktion - Halogenfreie flammwidrige thermoplastische Mantelmischungen

Câbles de communication -- Partie 2-27: Regles de conception communes et construction - Mélanges pour gainage thermoplastique sans halogene et avec propagation retardée de flamme

Ta slovenski standard je istoveten z: EN 50290-2-27:2002/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 50290-2-27:2002/A1:2007 en,fr,de

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50290-2-27/A1

June 2007

ICS 29.035.20; 33.120.10

English version

Communication cables - Part 2-27: Common design rules and construction - Halogen free flame retardant thermoplastic sheathing compounds

Câbles de communication - Partie 2-27: Règles de conception communes et construction - Mélanges pour gainage thermoplastique sans halogène et avec propagation retardée de flamme

Kommunikationskabel - Teil 2-27: Gemeinsame Regeln für Entwicklung und Konstruktion - Halogenfreie flammwidrige thermoplastische Mantelmischungen

This amendment A1 modifies the European Standard EN 50290-2-27:2002; 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

Ref. No. EN 50290-2-27:2002/A1:2007 E

Foreword

This amendment to the European Standard EN 50290-2-27:2002 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 50290-2-27:2002 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 grade of halogen free insulation compound for high temperature.

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3 Requirement

Replace Table 1 by the following to introduce grade 90 °C:

Table 1 - Halogen free flame retardant thermoplastic sheathing compounds

Characteristics		Test method	Unit	Grades	
1	Maximum rated temperature at cable for which the compound can be used		°C	70	90
2	Mechanical characteristics (see note 1)				
2.1	In state of delivery	EN 60811-1-1 9.2			
2.11	Tensile strength - median, min.		MPa	9	9
2.12	Elongation at break - median, min.		%	125	125
2.2	After ageing	EN 60811-1-2 8.1			
	Ageing conditions - temperature		°C	100 ± 2	110 ± 2
	- duration		h	7 x 24	7 x 24
2.21	Tensile strength - variation, max.		%	± 30	± 30
2.22	Elongation at break - median, min.		%	100 ± 30	100 [a] ± 40
	- variation, max.		%	> 0,6	≤ 0,6
					100 ± 40
3	Heat shock	EN 60811-3-1 9.2		Not applicable	Not applicable
	Test conditions - temperature		°C	130 ± 2	130 ± 2
	- duration		h	1	1
	Result to be obtained			No cracks	No cracks
4	Behaviour at low temperature				
4.1	Bending test at low temperature [b]	EN 60811-1-4 8.2			
	Test conditions - temperature		°C	- 15 ± 2	- 15 ± 2
	Result to be obtained			No cracks	No cracks
4.2	Elongation test at low temperature [c]	EN 60811-1-4 8.4			
	Test conditions - temperature		°C	-15 ± 2	-15 ± 2
	Elongation, min.		%	20	20

Table 1 - Halogen free flame retardant thermoplastic sheathing compounds (continued)

Characteristics		Test method	Unit	Grades	
5	Pressure test 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 8.2	 °C h %	 80 ± 2 4 50	 90 ± 2 4 50
6	Oxygen index (see note 2)	EN ISO 4589-2			
7	Corrosivity	IEC 60754-2	To meet	To meet	To meet
8	Smoke opacity (see note 3)				
9	Toxicity	Under consideration			

[a] Provisional value.

[b] For outer diameters up to and including 12,5 mm.

[c] For outer diameters exceeding 12,5 mm.

NOTE 1 Guidance for the preparation of samples for tensile and elongation tests before and after ageing. If the samples under test have ridges on the inside caused by the inner components of the cable (cores or wire braid) then these ridges should be removed by buffing, cutting or skiving.

NOTE 2 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 3 For selection of materials used in cables, IEC 60695-6 may be considered.