SLOVENSKI STANDARD
SIST HD 21.1 S2:1998/A13:1998

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Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements - Amendment A13

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V -- Part 1 : General requirements

Polyvinylchlorid-isolierte Leitungen mit Nennspannungen bis 450/750 V -- Teil 1: Allgemeine Anforderungen

Conducteurs et câbles isolés au polychlorure de vinyle, de tension assignée au plus égale à 450/750 V -- Partie 1: Prescriptions générales

Ta slovenski standard je istoveten z: **HD 21.1 S2:1990/A13:1994**

ICS:

29.060.20 Kabli Cables

SIST HD 21.1 S2:1998/A13:1998 **en**

HARMONIZATION DOCUMENT

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

HD 21.1 S2/A13

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ICS 29.060.20

Descriptors: See HD 21.1 S2:1990

ENGLISH VERSION

Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V
Part 1: General requirements

Conducteurs et câbles isolés au polychlorure de vinyle, de tension assignée au plus égale à 450/750 V
Première partie: Prescriptions générales

Polyvinylchlorid-isolierte Leitungen mit Nennspannungen bis 450/750 V
Teil 1: Allgemeine Anforderungen

This amendment A13 modifies the Harmonization Document HD 21.1 S2:1990. It was approved by CENELEC on 1994-07-05. CENELEC members are bound to comply with the CEN/CENELEC Inernal 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

Ref. No. HD 21.1 S2:1990/A13:1994 E

FOREWORD

Following a decision taken by CENELEC Technical Committee TC 20, Electric cables, an amendment to HD 21.1 S2:1990 was submitted to the CENELEC Unique Acceptance Procedure (UAP) in October 1993 for acceptance as an amendment to the Harmonization Document.

The text of the draft was approved by CENELEC as amendment A13 to HD 21.1 S2 on 5 July 1994.

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

For products which have complied with HD 21.1 S2:1990 and its amendments before 1995-07-15, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1996-07-15.

1. In Table I, amend reference No. 3 to read 'Compatibility test[1]' and in column 6 for TI 3 place the same wording as for TI 1 and TI 2 against 3.1 and 3.2.

   Re-state note [1] to read:

   '[1] Only applicable when called up by the particular cable standard'

2. Amend sub-clause 5.5.1 to include Type TM 3 as follows:

   'Type TM 3 for heat-resistant flexible cables' with a rated conductor temperature not exceeding 90°C'

3. Amend Table II, to include Type TM 3 as attached.

TABLE II

REQUIREMENTS FOR THE NON-ELECTRICAL TEST FOR POLYVINYL CHLORIDE (PVC) SHEATH

1	2	3	4	5	6
Ref. No.	Test	Unit	Type of compound	Test method described in	
			TM3	HD	Clause
1.	Tensile strength and elongation at break				
1.1	Properties in the state as delivered			505.1.1	9.2
1.1.1	Values to be obtained for the tensile strength: - median, min.	N/mm²	10		
1.1.2	Values to be obtained for the elongation at break: - median, min.	%	150		
1.2	Properties after ageing in air			505.1.2	8.1
1.2.1	Ageing conditions: - temperature - duration of treatment	°C h	135 ± 2 14x24		
1.2.2	Value to obtained for the tensile strength: - median, min. - variation(*), max.	N/mm² %	10 ± 25		
1.2.3	Values to be obtained for the elongation at break: - median, min. - variation(*), max.	% %	150 ± 25		
2.	Loss of mass test			505.3.2	8.2
2.1	Ageing conditions - temperature - duration of treatment	°C h	115 ± 2 10x24		
2.2	Values to be obtained for the loss of mass, max.	mg/cm²	1.5		
3.	Compatibility test (1)				
3.1	Ageing conditions - temperature - duration of treatment	°C h	100 ± 2 14x24	505.1.2	8.1.4
3.2	Mechanical properties after ageing - Values to be obtained		As in Ref. Nos. 1.2.2 & 1.2.3		

(*) Variation: difference between the median value after ageing and the median value without ageing, expressed as a percentage of the latter.

(1) Only applicable when called up by the particular cable standard.

TABLE II

REQUIREMENTS FOR THE NON-ELECTRICAL TEST FOR POLYVINYL CHLORIDE (PVC) SHEATH
(continued)

1	2	3	4	5	6
Ref. No.	Test	Unit	Type of compound	Test method described in	
			TM3	HD	Clause
4.	Heat shock test			505.3.1	9.2
4.1	Test conditions:				
	- temperature	°C	150±3		
	- duration of treatment	h	1		
4.2	Result to be obtained		Absence of cracks		
5.	Pressure test at high temperature			505.3.1	8.2
5.1	Test conditions:				
	- force exerted by the blade		**	505.3.1	8.2.4
	- duration of heating under load	h	**	505.3.1	8.2.5
	- temperature	°C	90±2		
5.2	Result to be obtained:				
	- median of the depth of indentation, maximum	%	50		
6.	Bending test at low temperature			505.1.4	8.2
6.1	Test conditions:				
	- temperature	°C	-15±2		
	- period of application of low temperature			505.1.4	8.2.3
6.2	Result to be obtained		Absence of cracks		
7.	Elongation test at low temperature			505.1.4	8.4
7.1	Test conditions:				
	- temperature	°C	-15±2		
	- period of application of low temperature		**	505.1.4	8.4.4 and 8.4.5
7.2	Result to be obtained				
	- elongation without break, min.	%	30		
8.	Impact test at low temperature			505.1.4	8.5
8.1	Test conditions:				
	- temperature	°C	-15±2		
	- period of application of low temperature		**	505.1.4	8.5.5
	- mass of hammer		**	505.1.4	8.5.4
8.2	Result to be obtained		**	505.1.4	8.5.6
9.	Minimum thermal stability at 200°C	min.	240	505.3.2	9

** See test method referred to in columns 5 and 6