SLOVENSKI STANDARD
SIST EN 61068-2:1998

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Specification for polyester fibre woven tapes - Part 2: Methods of test (IEC 61068-2:1991)

Specification for polyester fibre woven tapes -- Part 2: Methods of test

Bestimmung für gewebte Bänder aus Polyesterfilamenten -- Teil 2: Prüfverfahren

Spécification pour rubans tissés en fibres de polyester -- Partie 2: Méthodes d'essai

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ICS:

29.035.20	Plastični in gumeni izolacijski materiali	Plastics and rubber insulating materials

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English version

Specification for polyester fibre woven tapes
Part 2: Methods of test
(IEC 61068-2:1991)

Spécification pour rubans tissés en fibres de polyester
Partie 2: Méthodes d'essai
(CEI 61068-2:1991)

Bestimmung für gewebte Bänder aus Polyesterfilamenten
Teil 2: Prüfverfahren
(IEC 61068-2:1991)

This European Standard was approved by CENELEC on 1997-07-01. 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.

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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.

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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

The text of the International Standard IEC 61068-2:1991, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the formal vote and was approved by CENELEC as EN 61068-2 on 1997-07-01 without any modification.

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) 1998-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-06-01

Endorsement notice

The text of the International Standard IEC 61068-2:1991 was approved by CENELEC as a European Standard without any modification.

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Spécification pour rubans tissés en fibres de polyester

Partie 2: Méthodes d'essai

Specification for polyester fibre woven tapes

Part 2: Methods of test

International Electrotechnical Commission 3, rue de Varembé Geneva, Switzerland
Telefax: +41 22 919 0300 e-mail: inmail@iec.ch IEC web site http: //www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR POLYESTER FIBRE WOVEN TAPES

Part 2: Methods of test

FOREWORD

1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.

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This part of International Standard IEC 1068 has been prepared by Sub-Committee 15C: Specifications, of IEC Technical Committee No. 15: Insulating materials.

The text of this part is based on the following documents:

Six Months' Rule	Report on Voting
15C(CO)235	15C(CO)249

Full information on the voting for the approval of this part can be found in the Voting Report indicated in the above table.

SPECIFICATION FOR POLYESTER FIBRE WOVEN TAPES

Part 2: Methods of test

1 Scope

This part of IEC 1068 specifies requirements for tapes woven on shuttleless looms for continuous filament polyester fibres.

This part gives methods of test to demonstrate compliance with the general requirements of Part 1 and the specific requirements of Part 3 of the standard.

Other parts of IEC 1068 are:

- Part 1: Definitions, designation and general requirements.
- Part 3: Specifications for individual materials.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5081: 1977, *Textiles - Woven fabrics - Determination of breaking strength and elongation (Strip method).*

ISO 5084: 1977, *Textiles - Determination of thickness of woven and knitted fabrics (other than textile floor coverings).*

3 Tests

3.1 *Determination of number of warp ends*

The ends shall be counted across the full width of the tape under ordinary room conditions and divided by the nominal width to obtain the ends/10 mm of nominal width.

3.2 *Determination of number of picks*

The picks shall be counted over not less than 20 mm length of tape under ordinary room conditions and the average value shall be calculated from not less than three individual tests made at three different places along the tape.

NOTE - In most constructions, two threads equal one pick (see the definition of "pick" in Part 1).

3.3 *Determination of thickness*

The thickness shall be determined generally by the method given in ISO 5084, modified as below:

3.3.1 *Test pieces*

Take five rolls of tape selected at random.

3.3.2 *Conditioning*

Condition the rolls in an atmosphere of relative humidity within the range 45 % to 75 % and with a temperature between 15 °C and 35 °C and then measure the thickness under these conditions.

3.3.3 *Test apparatus*

Use test apparatus as described in ISO 5084. Pressure to be selected from ISO 5084 to be the nearest to (100 ± 10) kPa.

3.3.4 *Test procedure*

Clean the surface of the reference plate and of the presser foot. Adjust the instrument to provide a pressure of 100 kPa to 200 kPa. In all cases of dispute, a deadweight tester shall be used and the pressure shall be 100 kPa.

Separate the parallel plates and place an uncreased part of the test piece without tension in contact with the reference plate.

Reduce the distance between the reference plate and the presser foot until contact is made gently with the tape and note the reading of the gauge as soon as the movement of the pointer has ceased and the reading is easily visible.

On each of the five selected rolls make four measurements at random, one at each of the selvedges and two between the selvedges.

3.3.5 *Results*

For the five rolls there will be ten measurements at the selvedges and ten between the selvedges.

The central values of the two sets of ten measurements are the thickness of the tape at the selvedges and between the selvedges, respectively.

3.4 *Determination of width*

3.4.1 *Test pieces*

Take five rolls selected at random.

3.4.2 *Test conditions*

Make the test under standard ambient conditions.

3.4.3 *Procedure*

Unroll the tape and lay it flat on a smooth surface. Apply no more tension to the tape than is necessary to make it lie straight and flat.

Measure the width of the tape by means of a steel rule graduated in millimetres.

Make two measurements at random on each of the five selected rolls.

3.4.4 *Results*

Take the central value of the ten measurements at the width of the tape.

3.5 *Determination of shrinkage*

3.5.1 *Test pieces*

From each of the five rolls selected at random cut a test piece sufficiently long to be able to mark on it a distance of 500 mm.

3.5.2 *Procedure*

Lay the test piece flat on a smooth surface. Apply no more tension to the tape than is necessary to make it lie straight and flat.

Measure the marked length and width (when the shrinkage on width is required) to within ±0,5 mm. Make two measurements of each of the required dimensions on each of the five test pieces.

Place the test pieces in an oven which is maintained at 155 ± 5 °C. The test pieces shall be loosely coiled to allow free circulation of air. After 60 min ± 10 min at the 155 °C exposure, remove the test pieces and cool for 1 h at 15 °C to 35 °C.

Repeat the earlier measurements of length and width.

3.5.3 *Results*

Take the central value of the ten measurements before and after heating and express the result as a percentage, i.e.:

$$100 - \left(\frac{\text{length or width after heating}}{\text{length or width before heating}} \right) \times 100$$

Report also the central value of the shrinkage in width in millimetres.

3.6 *Shrinkage under load*

(Under consideration.)

3.7 *Determination of tensile strength*

3.7.1 *General*

The tensile strength shall be determined generally by the method given in ISO 5081, modified as below:

3.7.2 *Test pieces*

Take five test pieces of sufficient length to allow an unstretched length of 200 mm between the jaws of the testing machine.