SLOVENSKI STANDARD
SIST EN 60684-2:1998/A2:2006

01-marec-2006

Gibke izolacijske cevi – 2. del: Preskusne metode (IEC 60684-2:1997/A2:2005)

Flexible insulating sleeving -- Part 2: Methods of test

Isolierschläuche -- Teil 2: Prüfverfahren

Gaines isolantes souples -- Partie 2: Méthodes d'essai

Ta slovenski standard je istoveten z: **EN 60684-2:1997/A2:2005**

ICS:

29.035.20	Plastični in gumeni izolacijski materiali	Plastics and rubber insulating materials

SIST EN 60684-2:1998/A2:2006 **en**

EUROPEAN STANDARD **EN 60684-2/A2**

NORME EUROPÉENNE

EUROPÄISCHE NORM December 2005

ICS 29.035.20

English version

Flexible insulating sleeving
Part 2: Methods of test
(IEC 60684-2:1997/A2:2005)

Gaines isolantes souples
Partie 2: Méthodes d'essai
(CEI 60684-2:1997/A2:2005)

Isolierschläuche
Teil 2: Prüfverfahren
(IEC 60684-2:1997/A2:2005)

This amendment A2 modifies the European Standard EN 60684-2:1997; it was approved by CENELEC on 2005-12-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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. EN 60684-2:1997/A2:2005 E

Foreword

The text of document 15/224/FDIS, future amendment 2 to IEC 60684-2:1997, prepared by IEC TC 15, Standards on specifications for electrical insulating materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60684-2:1997 on 2005-12-01.

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)	2006-09-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2008-12-01

Endorsement notice

The text of amendment 2:2005 to the International Standard IEC 60684-2:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

INTERNATIONAL STANDARD

IEC 60684-2

1997

AMENDMENT 2
2005-11

Amendment 2

Flexible insulating sleeving –

Part 2: Methods of test

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PRICE CODE M

For price, see current catalogue

FOREWORD

This amendment has been prepared by IEC technical committee 15: Standards on specifications for electrical Insulating materials.

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

FDIS	Report on voting
15/224/FDIS	15/255/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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Add the following new clauses:

51 Dynamic shear at ambient temperature
52 Dynamic shear at elevated temperature
53 Dynamic shear after heat shock and heat ageing
54 Rolling drum peel to aluminium
55 Aluminium rod dynamic shear
56 Sealing
57 Adhesive T peel strength of two bonded heat-shrinkable substrates

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Add after Clause 50, introduced in Amendment 1, the following *new Clauses 51 through 57:*

51 Dynamic shear at ambient temperature

51.1 Principle

This test is designed to evaluate the strength of dual wall sleevings under shear conditions when bonded to an aluminium substrate.

51.2 Apparatus

Aluminium strips (100 ± 5) mm x (25 ± 1) mm x (0,9 ± 0,1) mm.

Degreasing solvent: 2-Butanone (methyl ethyl ketone)

Specimen assembly fixture (see Figure 16)

Silicone release paper

320 grit abrasive

Tensile test machine

Oven (for method 52, dynamic shear at elevated temperature)

Weight and Mass 1,4 kg ± 0,1 kg.

Suitable weight to flatten specimens.

51.3 Form and number of test specimens

Three test specimens shall be prepared. Three strips of aluminium shall be abraded and degreased on one side on a length of at least 20 mm from one end. Three lengths of sleeving at least 120 mm long shall be recovered in an oven for the time and temperature as specified in IEC 60684-3. Immediately after removal the sleeving shall be cut open longitudinally and laid flat on the silicone release paper, with the inside coated surface in contact with the silicone paper. A weight of sufficient mass to keep the specimens flat shall be placed on top. This assembly shall be allowed to cool to room temperature before the weight is removed. Any other suitable method for flattening the sleeving may be used.

The three specimens of the sleevings shall be finally cut longitudinally (100 ± 5) mm × (25 ± 1) mm.

The aluminium strips and cut sleeving specimens shall be assembled as shown in Figure 16, with the coated surface of the sleeving in contact with the abraded surface of the aluminium, overlapped between 12,5 mm and 14,2 mm. The weight with mass 1,4 kg shall be preconditioned in an oven for at least 1 h at the assembly conditioning temperature as specified in IEC 60684-3. The whole assembly, as shown in Figure 16, shall be placed in an oven for the time and temperature as specified in IEC 60684-3. The assembly shall then be removed from the oven and allowed to cool to room temperature before the weight is removed.

51.4 Procedure

Insert the specimen in the tensile test machine by clamping at least 25 mm of the aluminum strip in the top jaw and at least 25 mm of the sleeving in the bottom jaw. The rate of jaw separation shall be (50 ± 5) mm/min. Record the maximum load for each specimen.

51.5 Result

The result shall be the mean of the three maximum loads.

Dimensions in millimetres

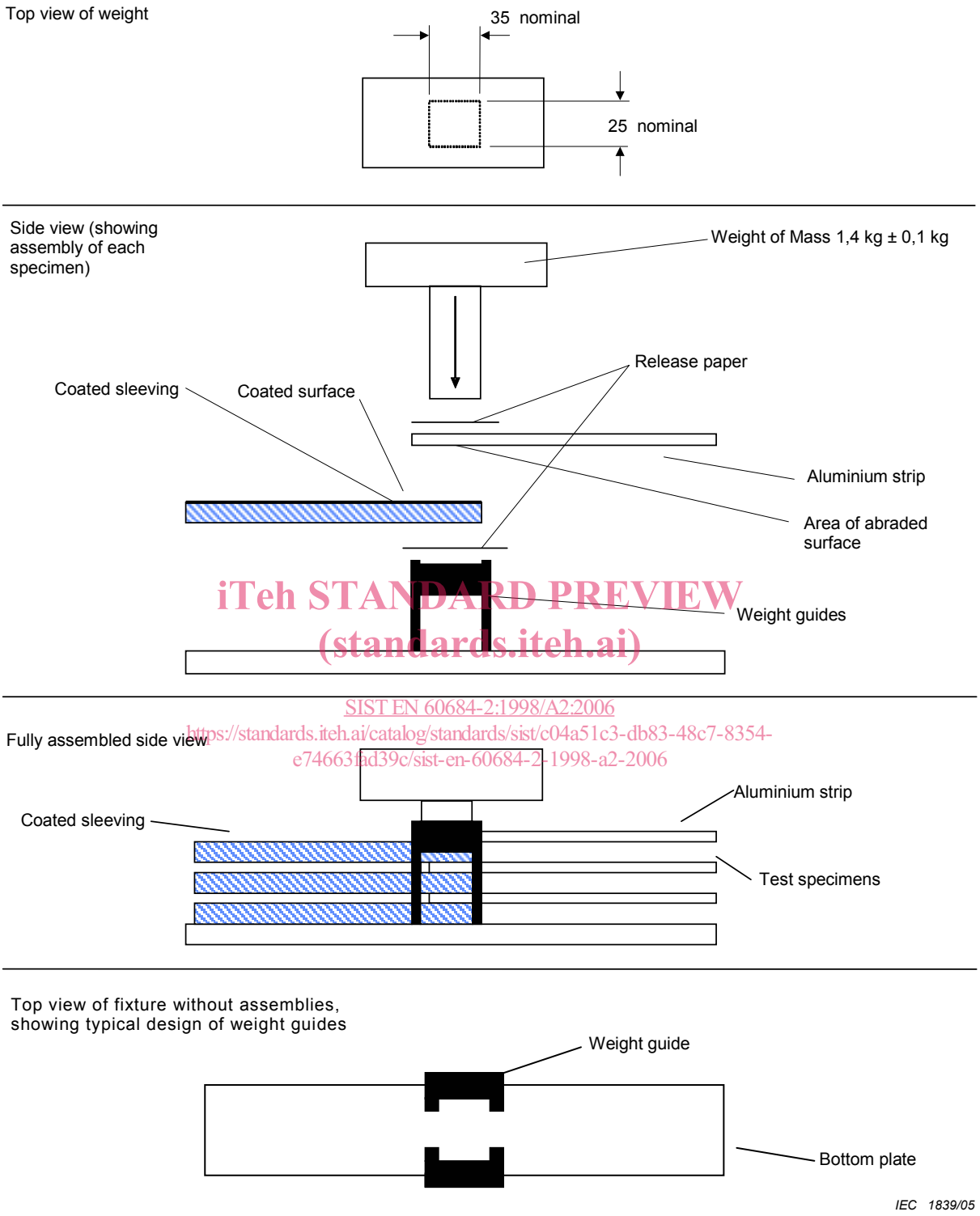


Figure 16 – Assembly and fixture for dynamic shear at ambient temperature

52 Dynamic shear at elevated temperature

The test specimens shall be prepared in accordance with 51.3.

The procedure shall be in accordance with 51.4 except that the test is performed in an oven mounted in the tensile test machine. The test specimens shall be pre-conditioned in the test oven and at the temperature of test for at least 30 min. The test temperatures shall be as specified in IEC 60684-3.

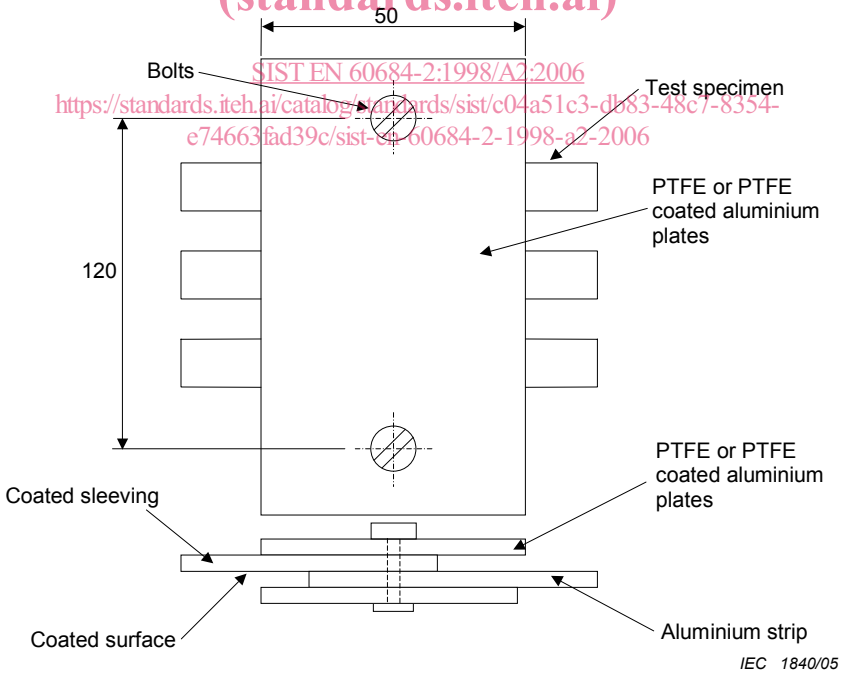
53 Dynamic shear after heat shock and heat ageing

The test specimens shall be prepared in accordance with 51.3.

The test specimens shall be sandwiched between two PTFE or PTFE coated aluminium plates as shown in Figure 17 with the bolts just sufficiently tight enough to ensure the specimens remain flat during the heat shock or heat ageing periods. The assembly shall be conditioned in an oven for the time and temperature specified in IEC 60684-3. The test specimen shall be removed from the oven and allowed to cool to room temperature before they are removed from the aluminum plates.

The test specimens shall then be tested in accordance with 51.4.

Dimensions in millimetres



NOTE Dimensions are nominal unless otherwise specified.

Figure 17 – Assembly for heat shock and heat ageing