

**SLOVENSKI STANDARD**  
**SIST EN 60674-3-4 to 6:1998****01-junij-1998**

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**Specification for plastic films for electrical purposes - Part 3: Specifications for individual materials - Sheets 4 to 6: Requirements for polyimide films used for electrical insulation (IEC 60674-3-4 to 6:1993)**

Specification for plastic films for electrical purposes -- Part 3: Specifications for individual materials -- Sheets 4 to 6: Requirements for polyimide films used for electrical insulation

Bestimmung für Kunststoff-Isolierfolien für elektrotechnische Zwecke -- Teil 3: Bestimmungen für einzelne Werkstoffe -- Blätter 4 bis 6: Anforderungen für Polyimide-Folien, die zur elektrischen Isolierung verwendet werden

Spécification pour les films en matière plastique à usages électriques -- Partie 3: Spécifications pour matériaux particuliers -- Feuilles 4 à 6: Prescriptions pour les films de polyimide utilisés dans l'isolation électrique

**Ta slovenski standard je istoveten z: EN 60674-3-4 to 6:1995**

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**ICS:**

29.035.20      Plastični in gumeni izolacijski materiali      Plastics and rubber insulating materials

**SIST EN 60674-3-4 to 6:1998**                      **en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60674-3-4 to 6**

February 1995

ICS 29.040.20; 83.140

Descriptors: Electrical insulating materials, solid electrical insulating materials, insulating films, plastic sheets, polyimides, specifications

English version

**Specification for plastic films for electrical purposes  
Part 3: Specifications for individual materials  
Sheets 4 to 6: Requirements for polyimide films used for  
electrical insulation  
(IEC 674-3-4 to 6:1993)**

Spécification pour les films en matière  
plastique à usages électriques  
Partie 3: Spécifications pour matériaux  
particuliers  
Feuilles 4 à 6: Prescriptions pour les  
films de polyimide utilisés dans  
l'isolation électrique  
(CEI 674-3-4 à 6:1993)

Bestimmung für Kunststoff-Isolierfolien  
für elektrotechnische Zwecke  
Teil 3: Bestimmungen für einzelne  
Werkstoffe  
Blätter 4 bis 6: Anforderungen für  
Polyimide-Folien, die zur elektrischen  
Isolierung verwandt werden  
(IEC 674-3-4 bis 6:1993)

This European Standard was approved by CENELEC on 1994-12-06. 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.

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 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.

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

### Foreword

The text of the International Standard IEC 674-3-4 to 6:1993, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the formal vote and was approved by CENELEC as EN 60674-3-4 to 6 on 1994-12-06 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) 1995-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1995-12-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 674-3-4 to 6:1993 was approved by CENELEC as a European Standard without any modification.

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## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

NOTE : When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC Publication	Date	Title	EN/HD	Date
674-1	1980	Specification for plastic films for electrical purposes Part 1: Definitions and general requirements	-	-
674-2	1988	Part 2: Methods of test	-	-
757	1983	Code for designation of colours	HD 457 S1	1985

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**NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD**

**CEI  
IEC  
674-3-4 à/to 6**

Première édition  
First edition  
1993-03

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**Spécification pour les films en matière plastique  
à usages électriques**

**Partie 3:**

Spécifications pour matériaux particuliers  
Feuilles 4 à 6: Prescriptions pour les films de  
polyimide utilisés dans l'isolation électrique

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**Specification for plastic films for electrical  
purposes**

**Part 3:**

Specifications for individual materials  
Sheets 4 to 6: Requirements for polyimide films  
used for electrical insulation

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International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SPECIFICATION FOR PLASTIC FILMS FOR  
ELECTRICAL PURPOSES**
**Part 3: Specifications for individual materials  
Sheets 4 to 6: Requirements for polyimide films  
used for electrical insulation**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) 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.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

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

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

DIS	Reports on Voting
15C(CO)280*	15C(CO)306
15C(CO)289*	15C(CO)311
15C(CO)290 + 290A***	15C(CO)312

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

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- \* Refers to sheet 4.
  - \*\* Refers to sheet 5.
  - \*\*\* Refers to sheet 6.

## INTRODUCTION

This International Standard is one of a series which deals with plastic films for electrical purposes. The series consists of three parts:

- Part 1: Definitions and general requirements (IEC 674-1).
- Part 2: Methods of test (IEC 674-2).
- Part 3: Specifications for individual materials (IEC 674-3).

This standard contains three of the sheets comprising part 3 as follows:

Sheet 4: Requirements for polyimide films based on poly(N,N'-p,p'-oxydiphenylene pyromellitimide) used for electrical insulation.

Sheet 5: Requirements for polyimide films based on poly(N,N'-p-phenylene biphenyl-tetracarboxylimide) used for electrical insulation.

Sheet 6: Requirements for polyimide films based on poly(N,N'-p,p'-oxydiphenylene biphenyl-tetracarboxylimide) used for electrical insulation.

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## SPECIFICATION FOR PLASTIC FILMS FOR ELECTRICAL PURPOSES

### Part 3: Specifications for individual materials Sheets 4 to 6: Requirements for polyimide films used for electrical insulation

#### 1 General

##### 1.1 Scope

This International Standard gives the requirements for the following polyimide, films with or without heat sealable fluoroethylene-propylene (FEP) coatings.

Sheet 4: Requirements for polyimide films based on poly(N,N'-p,p'-oxydiphenylene pyromellitimide).

Sheet 5: Requirements for polyimide films based on poly(N,N'-p-phenylene biphenyl tetra carboxylimide).

Sheet 6: Requirements for polyimide films based on poly(N,N'-p,p'-oxydiphenylene biphenyl-tetracarboxylimide).

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##### 1.2 Normative references

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

IEC 674-1: 1980, *Specification for plastic films for electrical purposes - Part 1: Definitions and general requirements.*

IEC 674-2: 1988, *Specification for plastic films for electrical purposes - Part 2: Methods of test.*

IEC 757: 1983, *Code for designation of colours.*

##### 1.3 Classification

The polyimide film shall be of the following types:

- Type 1: General purpose
- Type 2A: One side coated\*
- Type 2B: Two sides coated\*

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\* Type 2 is surface coated to render the surface(s) heat sealable.