



SLOVENSKI STANDARD SIST EN 60674-1:2001

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Specification for plastic films for electrical purposes - Part 1: Definitions and general requirements (IEC 60674-1:1980)

Specification for plastic films for electrical purposes -- Part 1: Definitions and general requirements

Bestimmung für Isolierfolien für elektrotechnische Zwecke -- Teil 1: Begriffe und allgemeine Anforderungen

Spécification pour les films en matière plastique à usages électriques -- Partie 1: Définitions et prescriptions générales

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Ta slovenski standard je istoveten z: EN 60674-1:1998

ICS:

01.040.29	Elektrotehnika (Slovarji)	Electrical engineering (Vocabularies)
29.035.20	Plastike in izolacijski materiali	Plastics and rubber insulating materials

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60674-1

February 1998

ICS 01.040.29; 29.035.20

Descriptors: Electrical insulating materials, solid electrical insulating materials, insulating films, plastic film, definitions, specifications

English version

**Specification for plastic films for electrical purposes
Part 1: Definitions and general requirements
(IEC 60674-1:1980)**

Spécification pour les films en matière
plastique à usages électriques
Partie 1: Définitions et prescriptions
générales
(CEI 60674-1:1980)

Bestimmung für Isolierfolien für
elektrotechnische Zwecke
Teil 1: Begriffe und allgemeine
Anforderungen
(IEC 60674-1:1980)

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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, Czech Republic, 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 60674-1:1980, prepared by SC 15C, Specifications, of IEC TC 15, Insulating materials, was submitted to the formal vote and was approved by CENELEC as EN 60674-1 on 1998-01-01 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) 1998-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1998-12-01

Endorsement notice

The text of the International Standard IEC 60674-1:1980 was approved by CENELEC as a European Standard without any modification.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE
NORME DE LA CEI

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC STANDARD

Publication 674-1
Première édition — First edition
1980

Spécification pour les films en matière plastique à usages électriques

Première partie: Définitions et prescriptions générales

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Specification for plastic films for electrical purposes

Part 1: Definitions and general requirements



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR PLASTIC FILMS FOR ELECTRICAL PURPOSES

Part 1: Definitions and general requirements

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.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

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 PREFACE
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This standard has been prepared by Sub-Committee 15C: Specifications, of IEC Technical Committee No. 15: Insulating Materials.

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A first draft was discussed at the meeting held in Toronto in 1976. As a result of this meeting, a draft, Document 15C(Central Office)59, was submitted to the National Committees for approval under the Six Months' Rule in October 1976.

The National Committees of the following countries voted explicitly in favour of publication:

Australia	Japan
Austria	Portugal
Belgium	Romania
Canada	South Africa (Republic of)
Czechoslovakia	Switzerland
Denmark	Turkey
Egypt	Union of Soviet
Finland	Socialist Republics
France	United Kingdom
Germany	United States of America

SPECIFICATION FOR PLASTIC FILMS FOR ELECTRICAL PURPOSES

Part 1: Definitions and general requirements

INTRODUCTION

This standard is one of a series which deals with plastic films for electrical purposes.

The series will consist of three parts:

Part 1: Definitions and general requirements.

Part 2: Methods of test (Publication 674-2).

Part 3: Specifications for individual materials (Publication 674-3).

1. Scope

This standard is applicable to plastic films used for electrical purposes.

This Part 1 gives definitions for, and specifies general requirements to be fulfilled by, plastic films used for electrical purposes.

2. Definitions

For the purpose of this standard, the following definitions apply:

2.1 *Bias — Camber*

When a length of slit film is laid flat on a plain surface, it will usually lie with its edges forming parallel straight lines. However, if the film contains a distortion such that one edge of the slit length is slightly longer than the other, the length will lie with its edges forming parallel, *curved* lines and the slit film is said to exhibit “bias”.

This form of distortion is sometimes known as the “curved sword effect”, and film exhibiting this distortion is said to “wander” or is said not to “track” correctly.

2.2 *Sag*

If a length of slit film is supported near its extremities (e.g. by draping it over a pair of parallel rollers or bars) so that the film is under light, uniform mechanical tension and lies approximately in a horizontal plane, the length of film will usually form a smooth catenary surface.

However, if the film contains a distortion such that certain areas lie below the general level of the catenary surface, the film is said to exhibit “sag” or “bagginess”. This distortion arises from the stretching of certain portions of the film either during manufacture or subsequent handling.

Where sag occurs at a slit edge, it may be known as “edge sag”, “edge flute”, “cockle” or “droop”.

When the sag occurs along a line within the width of the film it forms a “sag lane”, “pucker lane”, “stretch lane” or “gauge band”.

2.3 *Telescoping*

The axial shifting of sections of the reel of film relative to other annular sections. The effect is so named because of the visual similarity with the draw-tubes of a partly extended optical telescope.

3. General requirements

3.1 *Quality*

All material in any one consignment shall be consistent. The properties of the film shall be within the limits of this standard throughout the whole length of each roll. The surface shall be uniform and the film shall be substantially free from defects such as creases, tears, gas bubbles, pinholes, inclusions of foreign matter.

3.2 *Rolls*

The outside diameter of each roll shall be within the range agreed between the purchaser and supplier. The rolls shall be essentially circular and shall be wound sufficiently tightly to avoid telescoping during transit and subsequent normal use.

Rolls shall be capable of being unrolled easily. There shall be no hard bands which adversely affect unwinding and use. In any roll each end face shall at no point depart from its principal plane perpendicular to the axis of the core by more than ± 1 mm unless otherwise specified.

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3.3 *Joins (splices)*

The number of joins (splices), where these are permitted, shall be in accordance with the requirements given in Part 3 (under consideration). SIST EN 60674-1:2001

Where joins are permitted, they shall be suitable to withstand the mechanical and thermal stresses normally encountered in subsequent use. https://standards.itech.ai/catalog/standards/sist/995a08fd-061e-4f87-b6d5-4b0e374d7491

Special requirements such as visibility, heat or solvent resistance, shall be agreed upon between purchaser and supplier.

Joins shall be as thin as possible and may be made by fusion processes such as, for example, welding or with adhesive tape. Adhesive tape, if used, shall be preferably not thicker than the film itself and there shall be no exudation of or from the adhesive.

Joins shall not impair the unwinding of the film and shall be clearly visible when viewed from the end faces of the roll, unless otherwise agreed between purchaser and supplier.

3.4 *Cores*

The material shall be supplied rolled on a round core. The core shall not flake, collapse or distort under winding tension, nor shall it damage or cause degradation of the film.

The purchaser and supplier shall agree on all core properties and dimensions including the associated tolerances. The preferred inner diameters of the core are 76 mm and 150 mm with a tolerance of $\pm 1\%$. Cores may protrude at each end of the roll or be flush with the ends and the purchaser and supplier should agree on which arrangement is to be used and on the associated tolerances.