IEC 60674-3-3

Edition 2.0 2023-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Plastic films for electrical purposes –
Part 3: Specifications for individual materials – Sheet 3: Polycarbonate (PC) films used for electrical insulation

Films plastiques à usages électriques –
Partie 3: Spécifications pour matériaux particuliers – Feuille 3: Films de polycarbonate (PC) utilisés dans l'isolation électrique



IEC 60674-3-3:2023-08(en-fr)



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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PLASTIC FILMS FOR ELECTRICAL PURPOSES –

Part 3: Specifications for individual materials – Sheet 3: Polycarbonate (PC) films used for electrical insulation

FOREWORD

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IEC 60674-3-3 has been prepared by IEC technical committee 15: Solid electrical insulating materials. It is an International Standard.

This second edition cancels and replaces the first edition published in 1992. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the title of the standard has been changed to unify the name within the IEC 60674 series;
b) update of the normative references.

The text of this International Standard is based on the following documents:

Draft	Report on voting
15/979/CDV	15/1004/RVC

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60674 series, published under the general title *Plastic films for electrical purposes*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

This document 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 (IEC 60674-1);

Part 2: Methods of test (IEC 60674-2);

Part 3: Specifications for individual materials (IEC 60674-3).

This document contains one of the sheets comprising Part 3, as follows:

Sheet 3: Polycarbonate (PC) films used for electrical insulation

PLASTIC FILMS FOR ELECTRICAL PURPOSES –

Part 3: Specifications for individual materials – Sheet 3: Polycarbonate (PC) films used for electrical insulation

1 Scope

This sheet of IEC 60674-3 gives the requirements for polycarbonate films used for electrical insulation.

Materials which conform to this specification meet established levels of performance. However, the selection of a material by a user for a specific application can be based on the actual requirements necessary for adequate performance in that application and not based on this specification alone.

Safety warning: It is the responsibility of the user of the methods contained or referred to in this document to ensure that they are used in a safe manner.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

IEC 60674-2:2016, *Specification for plastic films for electrical purposes – Part 2: Methods of test*

IEC 60757, *Code for designation of colours*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

4 Classification

The polycarbonate film shall be of the following types:

– Type 1: General purpose amorphous, unstretched;
– Type 2: General purpose amorphous, stretched;
– Type 3: For use as the dielectric of capacitors, partially crystalline and stretched.