

**INTERNATIONAL
STANDARD**

**IEC
60454-3-11**

Second edition
2007-05

**Pressure-sensitive adhesive tapes
for electrical purposes –**

**Part 3:
Specifications for individual materials –
Sheet 11: Polyester film combinations
with glass filament, creped cellulosic paper,
polyester non-woven, epoxy and
pressure-sensitive adhesive**



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

N

For price, see current catalogue

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Classification and designation.....	7
5 Requirements	8
6 Test methods.....	9
7 Marking, labelling and packaging	9
Table 1 – Requirements for all types and combinations.....	10
Table 2 – Polyester film/glass filament combinations; specific requirements for various types.....	11
Table 3 – Creped cellulosic paper/Polyester film combinations with the thermosetting adhesive; specific requirements for various types	12
Table 4 – Polyester film/polyester non-woven combinations with rubber thermosetting adhesive; specific requirements for various types	13
Table 5 – Polyester/epoxy combinations with pressure sensitive adhesive; specific requirements for various types	14

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PRESSURE-SENSITIVE ADHESIVE TAPES
FOR ELECTRICAL PURPOSES –****Part 3: Specifications for individual materials –
Sheet 11: Polyester film combinations with glass filament,
creped cellulosic paper, polyester non-woven, epoxy and
pressure-sensitive adhesive**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60454-3-11 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

This second edition of IEC 60454-3-11 replaces the first edition, published in 1998, as well as replacing IEC 60454-3-15 (2001), IEC 60454-3-16 (2003) and IEC 60454-3-17 (2001). It constitutes a technical revision.

IEC 60454-3-15 IEC60454-3-16 and IEC 60454-3-17 are to be withdrawn at the time of this publication.

The main changes with regard to the previous edition is the consolidation of Parts 3-11, 3-15, 3-16 and 3-17.

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

FDIS	Report on voting
15/374/FDIS	15/383/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this 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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

This International Standard is one of a series which deals with pressure-sensitive adhesive tapes, intended primarily for electrical purposes.

The series consists of three parts:

- Part 1: General requirements (IEC 60454-1);
- Part 2: Methods of test (IEC 60454-2);
- Part 3: Specifications for individual materials (IEC 60454-3).

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

Sheet 11: Polyester film combinations with glass filament, creped cellulosic paper, polyester non-woven, epoxy and pressure-sensitive adhesive.

SAFETY WARNING

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

PRESSURE-SENSITIVE ADHESIVE TAPES FOR ELECTRICAL PURPOSES –

Part 3: Specifications for individual materials – Sheet 11: Polyester film combinations with glass filament, creped cellulosic paper, polyester non-woven, epoxy and pressure-sensitive adhesive

1 Scope

This sheet of IEC 60454-3 contains the requirements for pressure-sensitive adhesive tapes, made with combined backings based on polyester film:

- PET film/glass filament combination tapes;
- Creped cellulosic paper/PET film combination tapes;
- PET film/polyester non-woven combination tapes;
- PET film/epoxy combination tapes.

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

2 Normative references

The following referenced documents are indispensable for the application 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 60426:1973, *Test methods for determining electrolytic corrosion with insulating materials.*

IEC 60454-1:1992, *Specifications for pressure-sensitive adhesive tapes for electrical purposes – Part 1: General requirements.*

IEC 60454-2, *Specification for pressure-sensitive adhesive tapes for electrical purposes – Part 2: Methods of test¹*

IEC 60674-3-2:1992, *Specification for plastic films for electrical purposes – Part 3: Specifications for individual materials – Sheet 2: Requirements for balanced biaxially oriented polyethylene terephthalate (PET) films used for electrical insulation*

¹ A third edition of IEC 60454-2 is due to be published which will replace the current second edition dated 1998.