IEC 60454-3-2

Edition 3.0 2006-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Pressure-sensitive adhesive tapes for electrical purposes –
Part 3: Specifications for individual materials –
Sheet 2: Requirements for polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives

Rubans adhésifs sensibles à la pression à usages électriques –
Partie 3: Spécifications pour matériaux particuliers –
Feuille 2: Exigences relatives aux rubans en polyester avec un adhésif en caoutchouc thermodurcissable, caoutchouc thermoplastique ou en acrylique réticulé



IEC 60454-3-2:2006-01(en-fr)



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

PRESSURE-SENSITIVE ADHESIVE TAPES FOR ELECTRICAL PURPOSES –

Part 3: Specifications for individual materials – Sheet 2: Requirements for polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives

FOREWORD

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International Standard IEC 60454-3-2 has been prepared by IEC technical committee 15: Insulating materials.

This bilingual version (2014-05) corresponds to the English version, published in 2006-01.

This third edition of IEC 60454-3-2 replaces the second edition, published in 1998, and includes its consolidation with the text of IEC 60464-3-3 (1998). It constitutes a technical revision.

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

FDIS	Report on voting
15/251/FDIS	15/278/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.

The French version of this standard has not been voted upon.

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- withdrawn;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.

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 2:

Requirements for polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives

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 2: Requirements for polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives

1 Scope

This sheet of IEC 60454-3 contains the requirements for:

Polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives.

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, *Specification for pressure-sensitive adhesive tapes for electrical purposes – Part 1: General requirements*

IEC 60454-2:1994, *Specification for pressure-sensitive adhesive tapes for electrical purposes – Part 2: Methods of test*

3 Terms and definitions

For the purposes of this document, the definitions of IEC 60454-1 apply.

4 Classification and designation

4.1 Polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives

4.1.1 The products supplied according to this specification shall be classified as follows:

Type 1: Products having properties characteristic of a polyester film of nominal thickness 0,020 mm – 0,030 mm preferably 0,023 mm (23 μm) with a rubber thermosetting adhesive.

Type 2: Products having properties characteristic of a polyester film of nominal thickness 0,020 mm – 0,030 mm preferably 0,023 mm (23 μm) with an acrylic crosslinked adhesive.

Type 3: Products having properties characteristic of a polyester film of nominal thickness 0,020 mm – 0,030 mm preferably 0,023 mm (23 μm) with a flame retardant acrylic crosslinked adhesive.

Type 4: Products having properties characteristic of a polyester film of nominal thickness 0,045 mm – 0,055 mm preferably 0,050 mm (50 μm) with a rubber thermosetting adhesive.

Type 5: Products having properties characteristic of a polyester film of nominal thickness 0,045 mm – 0,055 mm preferably 0,050 mm (50 μm) with an acrylic crosslinked adhesive.

Type 6: Products having properties characteristic of a polyester film of nominal thickness 0,045 mm – 0,055 mm preferably 0,050 mm (50 μm) with a flame retardant acrylic crosslinked adhesive.

Type 7: Products having properties characteristic of a polyester film of nominal thickness 0,020 mm – 0,030 mm preferably 0,023 mm (23 μm) with a rubber thermoplastic adhesive.

Type 8: Products having properties characteristic of a polyester film of nominal thickness 0,045 mm – 0,055 mm preferably 0,050 mm (50 μm) with a rubber thermoplastic adhesive.

4.1.2 The products shall be designated for ordering purposes as follows:

Type 1: IEC 60454-3-2-1/F-PET/130/R-Tc

Type 2: IEC 60454-3-2-2/F-PET/130/A-Tx

Type 3: IEC 60454-3-2-3/F-PET/130/A-Tx

Type 4: IEC 60454-3-2-4/F-PET/130/R-Tc

Type 5: IEC 60454-3-2-5/F-PET/130/A-Tx

Type 6: IEC 60454-3-2-6/F-PET/130/A-Tx

Type 7: IEC 60454-3-2-7/F-PET/130/R-Tp

Type 8: IEC 60454-3-2-8/F-PET/130/R-Tp

5 Requirements

All applicable requirements of IEC 60454-1 shall apply to material furnished under this specification.

5.1 The physical and electrical properties of products supplied according to this specification shall be within the limits listed in Tables 1 and 2 when tested in accordance with the test methods listed therein.

5.2 Thermal endurance

Polyester film tapes with rubber thermosetting, rubber thermoplastic or acrylic crosslinked adhesives:

When required by the purchaser, the manufacturer shall provide evidence that when tested in accordance with Clause 21 of IEC 60454-2, the product has a temperature index of not less than 130 °C . The exposure temperatures are 150 °C, 160 °C and 180 °C .