AS 1602—1988

Australian Standard®

PRESSURE SENSITIVE ADHESIVE FILMIC TAPES FOR GENERAL OFFICE APPLICATIONS

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PREFACE

This Standard was prepared by the Association's Committee on Pressure Sensitive Adhesive Tapes under the direction of the Packaging Standards Board, to supersede AS 1602—1974.

This Standard was prepared as an update to provide for a reduction in the nominal backing thickness of cellulose acetate tapes from 0.05 mm to 0.045 mm and inclusion of an additional tape with nominal backing thickness of 0.35 mm and to introduce polypropylene tapes as a class of pressure sensitive adhesive filmic tapes that may be used in general office applications.

Polyester tapes have been deleted from the scope of the Standard as these tapes are currently not in common use for office application.

The purpose of this Standard is to provide a uniform basis, in terms of performance requirements, for the purchase of pressure sensitive adhesive filmic tapes suited for general office use, and to establish standard test requirements for such tapes. Provision is made for one group of performance requirements which apply in all cases, and for a further series of optional performance requirements the application of which is determined by agreement between purchaser and supplier.

The committee recognizes the continual development of new classification of tapes and these new classes will be considered in any future publication.

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FOREWORD

Pressure sensitive adhesive filmic tapes are available in a variety of base materials. The suitability of a tape for a particular application depends on the base material of the tape and the conditions to which the taped article may be subjected in service.

A knowledge of the various tape constructions and their characteristics will assist the tape user to choose the most suitable tape for a given purpose. By selecting the correct tape he will avoid wastage and possible damage to goods and articles.

The following summary is provided as a guide to tape usage. It shows the principal tape groupings, according to the backing material used in the tape construction, and their recommended applications. This summary should be read in conjunction with Tables 1 and 2 of the Standard, which give a range of performance requirements for various thicknesses. They are as follows:

(a) *Regenerated cellulose.* For light parcelling and holding. Not suitable for exposure to moisture or weather.

(b) *Cellulose acetate (low reflectance).* Dimensionally stable, long ageing, designed for permanent mending of paper, documents, books, maps, etc. Because its low reflectance makes the tape almost invisible when applied to paper, documents, blueprints, maps and the like, it may be used when copying by standard reproducing methods. In addition, it will accept typing and writing with pencil, paint, or other common marking devices.

(c) *Cellulose acetate (glossy backed).* Intended for permanent applications such as light holding, covering, shielding and sealing. Because it is a dimensionally stable, long ageing tape it is ideally suited for protecting labels, etc.

(d) *Polyvinyl chloride (PVC)—unplasticized.* A sealing, labelling and closure tape with moderate conformability and high resistance to moisture, some solvents and chemicals.

A modified unplasticized PVC tape which is clearer and tears more readily is also available.

(e) *Polypropylene —(biaxially oriented).* A sealing, labelling and closure tape with moderate conformability and high resistance to moisture, some solvents and chemicals.

(f) *Polypropylene —(biaxially oriented-easy tear).* For light parcelling and holding. Can be easily torn by hand without the use of a dispenser.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

PRESSURE SENSITIVE ADHESIVE FILMIC TAPES FOR GENERAL OFFICE APPLICATIONS

SECTION 1. GENERAL

1.1 SCOPE. This Standard applies to pressure sensitive adhesive filmic tapes suitable for use in general office applications. Such applications include both non-permanent and permanent sealing, holding, identifying, covering, decorating, document repair and light packaging. The chief functions of these tapes are indicated in the Foreword.

In areas that are specifically packaging applications, the appropriate tapes are covered by AS 1599 and should be tested in accordance with that specification.

1.2 APPLICATION. The material shall comply with the requirements of Section 1 and, when sampled and prepared for test in accordance with the requirements of Section 3, shall satisfy the performance requirements of Section 4, and such of the optional requirements of Section 5 as may be agreed on between purchaser and vendor.

1.3 REFERENCED DOCUMENTS. The following Standards are referred to in this Standard:

AS

1599 Pressure sensitive adhesive packaging tapes

1635 Methods of testing pressure sensitive adhesive tapes

- Method 3.1 Adhesion strength (AS 1635.3.1)
- Method 3.3 Quickstick (AS 1635.3.3)
- Method 3.5 Adhesion strength after water immersion (AS 1635.3.5)
- Method 4.1 Stability—Accelerated ageing (AS 1635.4.1)
- Method 4.2 Stability—Accelerated ageing of cellulose tape (AS 1635.4.2)
- Method 5.1 Breaking strength (AS 1635.5.1)
- Method 6.1 Elongation (AS 1635.6.1)
- Method 7.1 Unwind characteristics (AS 1635.7.1)
- Method 8.1 Length (AS 1635.8.1)
- Method 9.1 Thickness (AS 1635.9.1)
- Method 21.1 Mending stability (AS 1635.21.1)
- Method 21.2 Determination of resistance to accelerated ageing by artificial light (AS 1635.21.2)

1.4 DESCRIPTION. Pressure sensitive adhesive filmic tapes consist of a variety of base materials (e.g. cellulose, cellulose acetate, PVC) coated uniformly with a suitable adhesive composition and wound evenly into rolls on suitable cores.

A condition sometimes exists in fresh tape, where the adhesive surface appears to be pockmarked. These pockmarks, commonly called fisheyes, result from small amounts of air entrapped between the layers of tape during winding and in no way affect the quality of the tape, since they flow out and disappear in time. This condition should not be considered evidence of lack of uniformity of adhesive coating.

1.5 STORAGE STABILITY—SHELF LIFE. Supplies of the tape shall remain in a satisfactory condition and comply with the requirements of Section 3, and with such clauses of Section 4 as may be agreed on between purchaser and vendor, for a period of 12 months from the date of delivery if stored in their original sealed packages at temperatures below 25°C and below 80 percent relative humidity. For normal storage the rolls of tape shall be stored flat on their cut edges in the original containers, until required for use. They should be protected from dust, heat, moisture and direct sunlight.

Duplicate samples of the tape from each consignment may be sealed by the purchaser, one set of samples being retained by the purchaser and one by the vendor. Such samples may be referred to in the event of any contention by the purchaser that the provisions of this Clause have not been met.

1.6 CLASSIFICATION. Tables 1 and 2 set out a classification system and limiting values for physical properties for the various filmic tape constructions.

1.7 COLOUR. The colour in which tape is supplied shall be subject to agreement between purchaser and vendor.

1.8 CORES. Tape shall be wound on cores having an internal diameter of—

(a) 26 ±0.5 mm

(b) 51 ±0.5 mm

(c) $76\ ^{+1.0}_{-0}$ mm

and having sufficient rigidity to prevent distortion of the roll under normal conditions of transportation and use.

1.9 WIDTH. The width of tape shall be as ordered, subject to a tolerance of—

(a) ±1.0 mm on widths up to and including 19 mm; and

(b) ±2.0 mm on widths of 20 mm and above.

1.10 LENGTH. The length of tape on a roll shall be as agreed on between the purchaser and vendor.

1.11 SPLICES. Splices in single rolls shall be allowed at an average rate of one splice per 15 m of length. Any splice shall be so made as not to separate when unwound from the roll.