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Specification for

**Pressure —
sensitive adhesive
water —
resistant PVC tape**

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Aerospace Standards Policy Committee (ACE/-) to Technical Committee ACE/40, upon which the following bodies were represented:

Adhesive Tape Manufacturers' Association
British Aerospace plc
Ministry of Defence

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Foreword

This British Standard, prepared under the direction of the Aerospace Standards Policy Committee, is one of a series for pressure-sensitive adhesive tapes of a quality suitable for aerospace purposes and is a revision of BS 3J 10 which is superseded and withdrawn. This revision includes guidance on information to be supplied by the purchaser, introduces additional colours and deletes reference to a toluene bath for cleaning samples. Alternative cleaning methods are specified. A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This British Standard specifies requirements for pressure-sensitive adhesive water-resistant PVC tape for aerospace purposes.

NOTE 1 The tape may be used where the prevention of the ingress of moisture and dust during storage is important.

NOTE 2 The tape is particularly suitable for use when resistance to abrasion is involved. Its use for long periods at temperature exceeding 60 °C is not recommended.

NOTE 3 The information to be supplied by the purchaser in the contract or order is listed in Appendix A.

NOTE 4 The titles of the publications referred to in this standard are listed on the inside back cover.

NOTE 5 The latest revision of an Aerospace Series standard is indicated by a prefix number.

2 Construction

2.1 The tape shall consist of a base film of plasticized polyvinyl chloride or copolymer whose major constituent is vinyl chloride, 0.125 ± 0.035 mm thick, uniformly coated on one surface with a pressure-sensitive adhesive.

2.2 The tape shall be supplied in roll form, with the adhesive side innermost, on a suitable core of the same width as the tape.

3 Dimensions

The tolerances on the width of the finished tape shall be one of the following:

- a) ± 1.0 mm for tapes up to and including 19 mm;
- b) ± 1.5 mm for tapes over 19 mm.

NOTE The length and width of the finished tape should be stated by the purchaser in the contract or order (see Appendix A). The finished tape is usually supplied in lengths of 33 m and in one of the following widths:

- 1) 12 mm;
- 2) 15 mm;
- 3) 19 mm;
- 4) 22 mm;
- 5) 25 mm;
- 6) 38 mm;
- 7) 50 mm.

4 Colour

The colour of the tape shall comply with BS 6746C.

NOTE The colour should be stated by the purchaser in the contract or order (see Appendix A).

5 Freedom from defects

5.1 When the tape is unrolled there shall be no tearing of the base material.

5.2 Each roll shall be reasonably free from telescoping, gapping or other forms of distortion. When unrolled the tape shall show negligible transference of the adhesive to the backing of the underlying turn.

NOTE Care should be taken not to unwind tapes rapidly at temperatures below 10 °C.

6 Samples for testing

6.1 The test samples shall be conditioned in accordance with Appendix B.

6.2 A batch of tape shall consist of a number of rolls designated as a batch by the manufacturer and substantially uniform in quality.

6.3 From each batch at least one roll shall be examined for compliance with clauses 2 to 5 inclusive and tested for compliance with clauses 7 to 12 inclusive.

7 Breaking strength and elongation at break

When determined in accordance with Appendix C, the breaking strength of the tape shall be not less than 22 N per 10 mm width and the elongation at break shall be not less than 100 %.

8 Adhesive strength to steel

When determined in accordance with Appendix D, the adhesive strength of the tape shall be not less than 2.0 N per 10 mm width. The tape shall separate from the plate without visible off-setting of the adhesive.

9 Adhesive strength to backing

When determined in accordance with Appendix D, the adhesive strength of the tape shall be not less than 1.8 N per 10 mm width. The tape shall separate from the under-layer without visible off-setting of the adhesive.

10 Resistance to water

When tested in accordance with Appendix E, the tape shall comply with clause 8.

11 Water vapour permeability

When determined in accordance with Appendix F, the water vapour permeability of the tape shall be not more than 65 g/m² per 24 h.

12 Freedom from water-soluble corrosive impurities

12.1 The water extract for pH and conductivity determinations shall be prepared in accordance with Appendix G.

12.2 When determined in accordance with Appendix H, the pH value of the aqueous extract shall be not less than 5.5 and not more than 8.0.

12.3 When determined in accordance with Appendix J, the conductivity of the aqueous extract shall be not more than 2.5 mS/m.