

Coated fabrics for use in the manufacture of water penetration resistant clothing —

Part 2: Specification for non-water vapour permeable coated fabrics

Committees responsible for this British Standard

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- British Coal Corporation
- British Plastics Federation
- British Railways Board
- British Resin Manufacturers' Association
- British Rubber Manufacturers' Association
- British Textile Technology Group
- Department of Health
- Department of the Environment (Building Research Establishment)
- Electricity Association
- Furniture Industry Research Association
- Home and Contract Furnishing Textiles Association
- Home Office
- Industrial Safety (Protective Equipment) Manufacturers' Association
- London Regional Transport
- Made-up Textiles Association
- Man-made Fibres Producers' Committee
- Ministry of Defence
- National Union of Dyers, Bleachers and Textile Workers (NUDBTW)
- RAPRA Technology Ltd.
- SATRA Footwear Technology Centre
- Society of Motor Manufacturers and Traders Limited

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Foreword

This Part of BS 3546 has been prepared under the direction of the Plastics and Rubber Standards Policy Committee. It supersedes BS 3546-1:1981, BS 3546-2:1981 and BS 3546-3:1983, which are withdrawn.

This Part of BS 3546 covers non-water vapour permeable coated fabrics. Water vapour permeable coated fabrics are covered by Part 4 of BS 3546.

In preparing this Part of BS 3546 the Technical Committee has taken into account the many coated fabrics at present on the market, which can be used to produce an infinite performance range of materials for water penetration resistant clothing and which are not water vapour permeable.

To permit this flexibility, a supplier is required to provide information relating to the performance characteristics of the coated fabric in terms of the water penetration resistance, minimum bursting strength and minimum tear strength. Other physical and colour fastness requirements are specified that are applicable to all materials encompassed by this Part of BS 3546.

This Part of BS 3546 specifies batch acceptance tests. The sampling frequency and position of the samples is not specified as this will need to vary according to the type of fabric, the machinery employed and the detailed manufacturing conditions. Therefore, for routine testing, sampling is left to the discretion of the testing authority (which is usually the manufacturer), to be decided on the basis of the manufacturing conditions and the results of process control testing. The sampling procedure to be used in the event of a dispute is given in Annex A.

This Part of BS 3546 covers all the types of coated fabrics originally specified in BS 3546-1:1981, BS 3546-2:1981 and BS 3546-3:1983.

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 10, 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 Part of BS 3546 specifies requirements for non-water vapour permeable coated fabrics suitable for use in the construction of water penetration resistant clothing.

NOTE The coding system for the coating polymers applied to the fabrics is given in Table 1.

2 References

2.1 Normative references

This British Standard incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this British Standard only when incorporated in it by updating or revision.

2.2 Informative references

This British Standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this British Standard the following definitions apply.

3.1

coated fabric

a material composed of two or more layers, at least one of which is a textile material (woven, knitted, or nonwoven) and at least one of which is a substantially continuous polymeric film, bonded closely together by means of an added adhesive or by the adhesive properties of one or more of the component layers

3.2

water penetration resistance (WPR)

the ability of a coated fabric to withstand a hydrostatic head pressure when tested in accordance with method 29A of BS 3424-26:1990

NOTE It is recommended that the term “water penetration resistant” should not be applied to any coated fabric that does not exhibit a WPR greater than 10 kPa when tested in the “as received” condition. The term “water proof” is a deprecated term which implies that the water penetration resistance of a coated fabric is equivalent to its hydraulic bursting strength.

3.3

delamination

the partial or whole separation of two, or more, of the component layers of a coated fabric

NOTE This can be either a fabric to polymer separation or a separation within the actual polymeric layer. (See 6.3 of BS 3424-9:1990.)

3.4

single face coated fabric

a coated fabric in which one face is composed of the coating polymer and the reverse is the textile substrate

3.5

double face coated fabric

a coated fabric in which both external faces are composed of a coated polymer

3.6

double texture coated fabric

a coated fabric in which both faces of the coated fabric are of a textile nature

4 Marking and information

Each roll of coated fabric shall have a label attached bearing the following information:

- the name and/or distinctive mark of the manufacturer and a means of identifying the manufacturing batch number;
- the number of this British Standard i.e. BS 3546-2:1993¹⁾ and the supplier's quality code relating to the material.

The supplier's quality code shall include the codes for the fabric type listed in Table 2, Table 3 and Table 4.

The following information shall be provided on a separate data sheet, identifiable by the supplier's quality code, which shall accompany each order.

NOTE It is not necessary to provide a data sheet for each roll of coated fabric in an order.

- code for the coating polymer as given in Table 1;
- bursting strength, and tear strength;
- the fibre types employed in the manufacture of the textile component(s) of the coated fabric (see BS 4815);
- whether the coated fabric has been given a water repellant (shower proof) finish, and if so what type e.g. fluorocarbon or cross linked silicone;

¹⁾ Marking BS 3546-2:1993 on or in relation to a product represents a manufacturer's declaration of conformity, i.e. a claim by or on behalf of the manufacturer that the product meets the requirements of the standard. The accuracy of the claim is solely the claimant's responsibility. Such a declaration is not to be confused with third party certification of conformity, which may also be desirable.