

Specification for

Air-impermeable chemical protective clothing

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Personal Safety Equipment Standards Policy Committee (PSM/-) to Technical Committee PSM/36, upon which the following bodies were represented:

- British Clothing Industry Association
- British Occupational Hygiene Society
- British Rubber Manufacturers' Association
- British Wood Preserving Association
- Chemical Industries Association
- Chief and Assistant Chief Fire Officers' Association
- Ergonomics Society
- Health and Safety Executive
- Home Office
- Industrial Safety (Protective Equipment) Manufacturers' Association
- Institute of Occupational Hygienists
- Ministry of Defence
- National Association of Glove Manufacturers
- Trades Union Congress
- Coopted member

This British Standard, having been prepared under the direction of the Personal Safety Equipment Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 January 1990

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Foreword

This British Standard has been prepared under the direction of the Personal Safety Equipment Standards Policy Committee.

At the time of publication of this British Standard, no corresponding International Standard exists.

This standard enables clothing offering protection against specific liquid chemical agents to be specified by making reference to BS 4724 for the assessment of the resistance of clothing materials to permeation by liquids and to BS 3546 which specifies requirements for coated fabrics.

Although clothing made from other materials will not comply with this standard as a whole, the technical committee responsible for this standard has recognized that the type of application of a protective garment under consideration may nevertheless call for the use of, for example:

- a) coated fabrics other than those specified in BS 3546-1, BS 3546-2 and BS 3546-3;
- b) unsupported solid plastics or rubber in the form of film or sheet;
- c) fabrics of laminated construction;
- d) other air-impermeable materials.

In such circumstances advice concerning the selection of a suitable fabric should be sought from the suppliers of the material, attention being drawn to the requirements for making-up, performance, sizing and marking of garments that are given in this standard and to the recommendations of BS 7184 on selection, use and maintenance of chemical protective clothing.

Similarly, in the case of gloves that are integral to gas-tight suits, the specification calls up relevant clauses in BS 1651 to specify the characteristics of gloves made from PVC or the more common types of rubber. Hence the use of other materials of construction will not enable the suit as a whole to comply with this standard. Subject to this understanding, if there is a call in special circumstances for the use of gloves made of other materials, guidance to their selection should be sought from the suppliers or manufacturers in the light of the recommendations of BS 7184.

The specification includes requirements for the performance of seams and of closures in the garments.

The specification is intended for the use of manufacturers and, as such, does not deal with conditions of use. Care in the selection of protective clothing is required to ensure effective protection.

In this respect, it is emphasized that protective clothing is not necessarily completely effective under all circumstances. Hence its performance should be tested by appropriate means so that the user may be aware of the extent of the protection that is available. The performance of protective clothing should also be assessed under practical conditions in order to assess the degree and duration of the protection that the clothing affords when subject to mechanical stress as well as to exposure to chemicals in the working environment. Other characteristics, such as flammability and static electrical properties of the materials of construction should be taken into account as appropriate.

In cases where there is a need to test an assembly of garments as a whole, the use of appropriate test techniques should be considered to enable the purchaser or user to foresee the performance of the clothing when exposed, for example, to sprays or splashes of liquids or to solids in powder form.

Detailed guidance for the selection, use and maintenance of chemical protective clothing is given in BS 7184.

Attention is drawn to the need for the fibre content to be given in accordance with Statutory Instrument 1986 No 26, Trade Descriptions, The Textile Products (Indications of Fibre Content) Regulations 1986.

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 to iv, 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.

