

Specification for Fire blankets

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Fire Standard Committee (FSM/-) to Technical Committee FSM/2, upon which the following bodies were represented:

British Aerosol Manufacturers' Association	Fire Extinguishing Trades Association
British Fire Services' Association	Fire Insurers' Research and Testing Organization (Firto)
Chemical Industries Association	Fire Offices Committee
Chief and Assistant Chief Fire Officers' Association	Fire Protection Association
Confederation of British Industry	Greater London Council
Consumer Standards Advisory Committee of BSI	Health and Safety Executive
Consumers' Association	Home Office
Department of the Environment (Property Services Agency)	Industrial Fire Protection Association of GB
Department of Trade and Industry (Chemicals, Textiles, Paper and Miscellaneous Division)	Institute of Petroleum
Department of Transport (Marine Directorate)	Institution of Fire Engineers
Engineering Equipment and Materials Users' Association	London Transport Executive
	Metal Packaging Manufacturers' Association
	Ministry of Defence
	National Coal Board
	Society of Chemical Industry
	Society of Motor Manufacturers and Traders Limited

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

Asbestos Information Centre Ltd.	British Medical Association
British Leather Federation	Department of the Environment, Building Research Establishment (Fire Research Station)
British Leather Manufacturers' Research Association	Coopted members

This British Standard, having been prepared under the direction of the Fire Standards Committee, was published under the authority of the Board of BSI and comes into effect on 28 June 1985

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The following BSI references relate to the work on this standard:
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Amendments issued since publication

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Foreword

This British Standard has been prepared under the direction of the Fire Standards Committee. It gives practical performance tests of the effectiveness of fire blankets in the two principal applications, the extinction of small fires and resistance to heat transmission and penetration by hot objects or sparks.

Fire blankets which meet the requirements of the fire tests only are considered suitable for use in domestic or other kitchens or wherever there may be a need to extinguish fires in small containers or fires in clothing worn by persons.

Consideration should be given to the provision of other methods of fire fighting including portable extinguishers, hose reels, sprinkler systems, and other automatic extinguishing systems.

Fire blankets which meet the requirements of both types of performance test are considered suitable for industrial or fire service use to provide protection to persons or equipment from sparks, molten metal or plastics droplets during emergency cutting operations etc.

Some materials used for fire blankets may be degraded or even burn on prolonged contact with flame, but the committee consider that this should not restrict the use, for the purposes described here, of materials which meet the heat and fire resistance requirements of this British Standard.

Materials used for the construction of fire blankets should be generally recognized as non-toxic to humans in storage and in use.

Traditionally many fire blankets have been made from asbestos. It has been suggested, but no evidence has been presented, to the committee that asbestos fire blankets represent a health hazard to users. Nevertheless the committee decided not to include asbestos fire blankets in this British Standard until suitable tests are devised to assess any health hazard.

In addition to the performance requirements specified in this standard, it is recommended that fire blankets be suitably treated where necessary to give adequate resistance to attack by micro-organisms and insects throughout the design life. For reusable fire blankets such treatment should be capable of withstanding the recommended washing or cleaning process.

Certification. Attention is drawn to the certification facilities described on the inside back cover.

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 12, 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 fire blankets intended for use by one person. Fire blankets are classified as either light duty or heavy duty, with correspondingly different suggested applications.

This standard does not apply to fire blankets that:

- a) are made from asbestos;
- b) have sides of differing appearance, finish or colour;
- c) have a performance that differs according to which side is used;
- d) are of metallic sandwich construction.

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

2 Definitions

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

2.1

fire blanket

a flexible sheet of material intended to be used to extinguish small fires by smothering, or as a protection against radiant heat or small hot objects

2.2

reusable fire blanket

a fire blanket that is suitable for reuse after cleaning or washing

3 Classification

Fire blankets are classified as follows.

- a) *Light duty*: for extinguishing small fires in containers of cooking fat or oils and fires in clothing worn by persons.
- b) *Heavy duty*: for industrial applications with the ability to resist penetration by molten metals ejected from cutting and similar processes and any conducted or radiant heat transfer when used for insulation purposes in addition to the uses mentioned for the light duty blankets.

4 Size and shape

Fire blankets shall be rectangular or square, with no edge longer than 1.8 m. Light duty fire blankets shall have no edge less than 0.9 m. Heavy duty fire blankets shall have no edge less than 1.2 m.

5 Mass

Fire blankets shall have a maximum mass of 10 kg.

6 Hand holding devices

Hand holding devices if provided shall not comprise loops or pockets and shall not become detached from the blanket during testing for compliance with clauses 9, 10, 12, 13, 14, 15 and 16.

NOTE It is recommended that careful attention be paid to the design of any holding device to ensure ease of handling and hand release.

7 Appearance and bi-lateral use

The two sides of a fire blanket shall be of similar appearance, finish or colour and shall give the same results when tested for compliance with clauses 9, 10, 12, 13, 14, 15 and 16.

NOTE It is important not only that either side of the fire blanket can be exposed to the fire, or other hazard, with equal effectiveness but also that no doubt be created in the mind of the user at the moment of emergency use as to which side of the fire blanket to apply to the hazard.

8 Resistance to fraying

The edges of fire blankets shall not fray or tear during testing for compliance with clauses 9, 10, 12, 13, 14, 15 and 16.

9 Flexibility

Blankets shall be capable of being rolled without permanent deformation and along any axis completely around a 50 mm diameter bar.

10 Ease of removal and unpacking

Fire blankets shall be stowed or packed, in accordance with the manufacturer's instructions, in such a way that they can be taken from the stowage position, unfolded and held ready for use in not more than 4 s. The force required to remove the fire blanket from its container (if used) shall not exceed 80 N.

NOTE Fire blankets may conveniently be installed for use by mounting containers on wall brackets at about eye level.

11 Test conditions and preparation of samples

Except where otherwise specified tests shall be carried out at 20 ± 10 °C using fire blankets conditioned as described in Appendix A. Fire blankets which contain a seam shall be tested both on and off the seam and, where the seam is tested, in the most unfavourable condition. Tests shall be carried out using a single thickness of the fire blankets.

NOTE Lap joints may trap hot particles in the cutting test if facing upwards.

12 Thermal insulation (heavy duty fire blankets only)

There shall be no damage, including smoothing or modification of the embossing on the surface, to the PVC simulated skin, or ignition of the fire blanket when heavy duty fire blankets are tested for thermal insulation by the method described in Appendix B. One fire blanket shall be tested at three points (two on one side and one on the other side) and all three tests shall be successful.

13 Resistance to the effects of hot cutting (heavy duty fire blankets only)

There shall be no damage, including smoothing or modification of the embossing on the surface, to the PVC simulated skin, or ignition of the fire blanket when heavy duty fire blankets are tested for resistance to the effects of hot cutting by the method described in Appendix C. One fire blanket shall be tested at three points (two on one side and one on the other side) and all three tests shall be successful.

14 Electrical insulation

The electrical resistance of the fire blanket material shall not be less than 1 MΩ at any point when measured by the method described in Appendix D. Three fire blankets shall be tested.

15 Reusability

After having been cleaned according to the manufacturer's instructions, blankets to be marked as reusable [see 17.1 b)] shall be capable of extinguishing the volatile liquid fire described in Appendix E.

Test three fire blankets by using each once on the test fire, cleaning or washing each once according to the manufacturer's instructions, subjecting each to 10 cycles of a) folding, b) repacking into its container or original form, c) unpacking before reusing the fire blanket on a second test fire. When testing any fire blanket use the same part to cover both fires (before and after cleaning). All three fire blankets shall extinguish both fires.

16 Fire performance tests

16.1 Light duty fire blankets

16.1.1 Light duty fire blankets shall be capable of extinguishing the smaller volatile liquid fire described in Appendix E. Test three fire blankets each once. All three tests shall be successful and the fire blanket shall remain whole and not ignite during the test.

16.1.2 Light duty fire blankets shall be capable of extinguishing the smaller cooking oil fire described in Appendix F. Test three blankets each once. All three tests shall be successful and the fire blanket shall remain whole and not ignite during the test.

16.2 Heavy duty fire blankets

16.2.1 Heavy duty fire blankets shall be capable of extinguishing the larger volatile liquid fire described in Appendix E. Test three fire blankets each once. All three tests shall be successful and the fire blanket shall remain whole and not ignite during the test.

16.2.2 Heavy duty fire blankets shall be capable of extinguishing the larger cooking oil fire described in Appendix F. Test three blankets each once. All three tests shall be successful and the fire blanket shall remain whole and not ignite during the test.

17 Marking

17.1 Blanket

Each fire blanket shall be marked with the following:

- a) the words "fire blanket";
- b) the words "heavy duty" or "light duty" and "reusable" as appropriate;
- c) the manufacturer's or vendor's name and address;
- d) the information specified in 17.3 or wording which relates the fire blanket to the container and/or the instruction sheet;
- e) the number and date of this British Standard, i.e. BS 6575:1985¹⁾.

¹⁾ Marking BS 6575:1985 on or in relation to a product is a claim by the manufacturer that the product has been manufactured to the requirements of the standard. The accuracy of such a claim is therefore solely the manufacturer's responsibility. Enquiries as to the availability of third party certification to support such claims should be addressed to the director, Quality Assurance Division, BSI, PO Box 375, Milton Keynes MK14 6LO for certification marks administered by BSI or to the appropriate authority for other certification marks.