

# इंटरनेट

# मानक

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IS 15381 (2003): Fire Blanket - [CED 36: Fire Safety]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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भारतीय मानक  
अग्नि शमन हेतु कम्बल — विशिष्टि

*Indian Standard*  
FIRE BLANKET — SPECIFICATION

ICS 13.340.10

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**BUREAU OF INDIAN STANDARDS**  
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NEW DELHI 110002

## FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Fire Safety Sectional Committee had been approved by the Civil Engineering Division Council.

The blanket is intended for use in fire fighting operations for protection of the operator and for smothering and extinguishing fire in its early stages.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

## FIRE BLANKET — SPECIFICATION

### 1 SCOPE

This standard covers the requirements of material, manufacture and other requirements of fire blanket, 1.8 m × 1.8 m.

### 2 REFERENCES

The standards given below contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
7639 : 1975	Methods of sampling of asbestos cement products
11451 : 1986	Recommendation for safety and health requirements relating to occupational exposure to asbestos
11767 : 1986	Recommendations for cleaning of premises and plants using asbestos fibres
11768 : 1986	Recommendations for disposal of asbestos waste material
11770 (Part 3) : 1987	Recommendations for control of emission of asbestos dust in premises manufacturing products containing asbestos: Part 3 Non-cement asbestos products other than friction materials
12078 : 1987	Recommendations for personal protection of workers engaged in handling asbestos
12079 : 1987	Recommendations for packaging, transport and storage of asbestos
12080 : 1987	Recommendations for local exhaust ventilation systems in premises manufacturing products containing asbestos
12081	Recommendations for pictorial warning signs and precautionary notices for asbestos and products containing asbestos:
(Part 1) : 1987	Workplaces
(Part 2) : 1987	Asbestos and its products
13362 : 1992	Textiles — Asbestos yarn

### 3 MATERIALS

The blanket shall be manufactured from the following

materials conforming to the particulars noted against each:

<i>Sl No.</i>	<i>Components</i>	<i>Materials</i>	<i>Particulars</i>
i)	Body	Cloth asbestos, 1.6 mm	Yarn conforming to IS 13362
ii)	Loops	Tape/Web asbestos or Cloth asbestos, 1.6 mm	Annex A
iii)	Stitching	Sewing thread asbestos	Annex B

### 4 MANUFACTURE

**4.1** The blanket shall be made from a single piece of cloth asbestos. If the cloth asbestos of the required width is not available, the body of the blanket may be made by joining two pieces of asbestos cloth (0.08 m smaller width) by means of a 25 mm wide lapped seam as shown in Fig. 1. The joint shall be stitched and two rows of blanket shall be finished with a 25 mm wide hem at the sides with the raw edges turned in and stitched.

**4.2** Two loops, each 25 mm wide, shall be made from tape asbestos [see 3.1 (iii)], alternatively, these shall be made by turning in the raw edges of 70 mm of asbestos cloth (body materials) cut warp wise and by folding in the middle and top stitching the folded piece with two rows of machine stitching. The loops shall be sewn on to any one of the sides of the blanket body. One of the loops shall be stitched at 630 mm from one corner and the other at same distance from the other corner. The total length of the strip for each loop shall be 760 mm of which 460 mm shall form the loop as shown in Fig. 1.

**4.3** Stitching shall be done neatly and securely with even tension, regulated at 16 to 20 stitches per decimetre. All loose ends shall be securely fastened off.

### 5 DIMENSIONS AND TOLERANCES

The blanket shall conform to the dimensions shown in Fig. 1. A tolerance of ± 15 mm is permissible in length and width of the blanket.

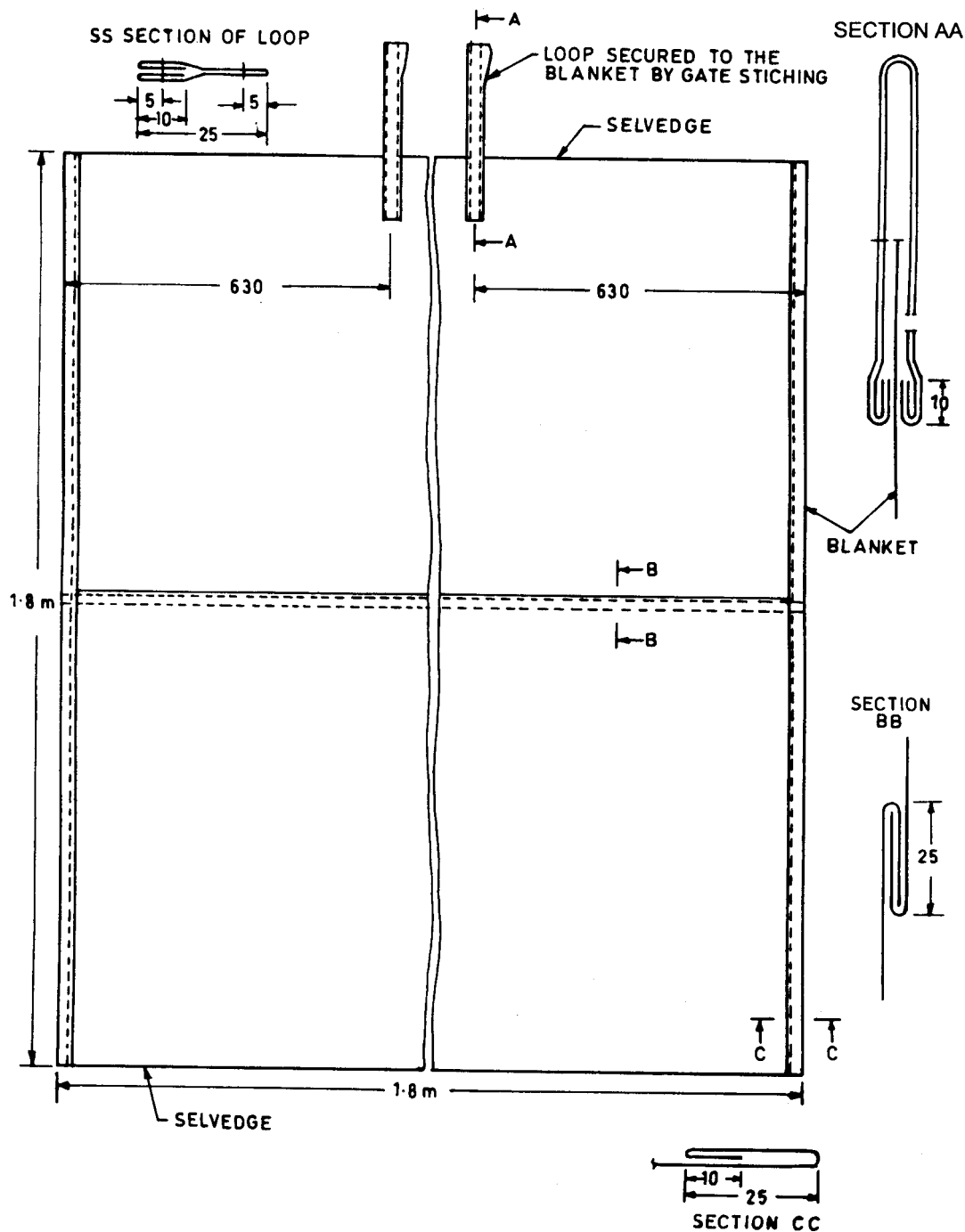


FIG. 1 FIRE BLANKET

## 6 WORKMANSHIP AND FINISH

The blanket shall be reasonably free from spinning, weaving and stitching defects and effect in workmanship consistent with good manufacturing practice.

## 7 SAFETY RULES

The recommendation for personal protection for

control of emission of asbestos dust in premises used for manufacture of asbestos fire blanket as laid down in IS11451, IS 11767, IS 11768, IS11770 (Part 3), IS 12078, IS 12079 and IS 12080.

## 8 SAMPLING

The sampling, inspection and acceptance shall be in accordance with IS 7639.

## 9 MARKING

9.1 Each blanket shall be legibly and indelibly marked with the following information:

- Nomenclature,
- Serial No.,
- Manufacturer's name,
- Year of manufacture, and
- Pictorial warning sign as given in IS 12081 (Parts 1 and 2).

## 9.2 BIS Certification Marking

Fire blanket, conforming to this standard may also be marked with the Standard Mark.

9.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

## ANNEX A

(Clause 3)

A-0 Tape/Web asbestos shall conform to the following particulars.

### A-1 MATERIALS

The asbestos yarns used for the manufacture of tape shall conform to IS 13362.

### A-2 CONSTRUCTION AND OTHER DETAILS

Width (Average) mm	Number of Threads Approximately		Mass Metre (Approximately) Conditioned at 65 ± 2 percent Relative Humidity and 27 ± 2°C for 24 h in g
	Ends in full width	Picks decimeter	
25	15 (2 ply)	32 (2 ply)	35 to 40

### A-3 MANUFACTURE AND FINISH

The plies of the yarns used for making the tape shall properly be twisted together. The tape shall have a reasonably uniform thickness.



**ANNEX B***(Clause 3)***PARTICULARS OF SEWING THREAD ASBESTOS****B-1 MATERIALS**

The sewing thread asbestos shall be manufactured from long white tough chrysotile asbestos fibres from grit or rocky matter and from any metallic wire

reinforcement or foreign fibres or yarns made from such fibres as may be necessary for its manufacture.

**B-2 CONSTRUCTION AND OTHER DETAILS**

The threads shall conform to the following particulars:

<i>No. of Plies Min</i>	<i>Length m/kg</i>	<i>Minimum (Average) Breaking Strength kg</i>	<i>Hydroscopic Moisture Content Percent, Max</i>	<i>Further Loss on Ignition in Muffle Furnace Percent, Max</i>
2	1 500 to 2 200	3.0	4	45

**NOTES**

1 For determination of length per unit mass, a minimum of 20 m length of thread shall be taken, conditioned in an atmosphere of  $65 \pm 2$  percent relative humidity and a temperature of  $27 \pm 2^\circ\text{C}$  for a period of 24 h and then weighed under the same condition.

2 For determination of breaking strength, the test piece shall be of such a length as to allow 600 mm clear and between the grips of the machine. The test piece shall be conditioned in an atmosphere of  $65 \pm 2$  percent relative humidity and a temperature of  $27 \pm 2^\circ\text{C}$  for a period of 48 h and then broken in a suitable single thread tester, in which it is stretched at a constant rate of 300 mm/min. The breaking strength of the sewing thread shall be the average results of 20 test specimens.

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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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