

भारतीय मानक

वस्त्रादि - सीमेंट पैक करने के लिए पटसन के कट्टे -
विशिष्ट

(तीसरा पुनरीक्षण)

Indian Standard

TEXTILES — JUTE SACKING BAGS FOR
PACKING CEMENT — SPECIFICATION

(*Third Revision*)

UDC 621.798.151 [677.13]

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Jute and Jute Products Sectional Committee had been approved by the Textile Division Council.

This standard originally published in 1963 was revised in 1965 and 1982. The constructional details and other particulars included in this standard are based on the results of sustained research and development efforts made by the National Council for Cement and Building Materials then Cement Research Institute of India in close collaboration with Indian Jute Mills Association and cement industry. The standard was subsequently revised to incorporate necessary changes based on extensive performance trails. The standard has been revised again so as to ensure compatibility regarding general requirements of Jute sacking bags with those specified in IS 9113 : 1992 'Textiles — Jute sacking — General requirements (*first revision*)'. For the convenience of small scale cement manufacturers provision has also been made in the standard for bags without valve.

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

TEXTILES — JUTE SACKING BAGS FOR PACKING CEMENT — SPECIFICATION

(*Third Revision*)

1 SCOPE

This standard prescribes the constructional details and other requirements of plain weave, double warp jute sacking bags for packing 50 kg cement.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
1963 : 1981	Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>) (Reaffirmed April 1993)
1969 : 1985	Methods for determination of breaking load and elongation of woven textile fabrics (<i>second revision</i>) (Reaffirmed April 1993)
2873 : 1991	Textiles — Packaging of jute products in bales — Specification (<i>second revision</i>)
2969 : 1974	Method for determination of oil content of jute yarn and fabrics (<i>first revision</i>) (Reaffirmed March 1993)
5476 : 1986	Glossary of terms relating to jute (<i>first revision</i>)
9030 : 1979	Method for determination of seam strength of jute fabrics including their laminates (Reaffirmed March 1992)
9113 : 1993	Textiles — Jute sacking — General requirements (<i>first revision</i>)
12001 : 1987	Specification for jute sacking cloth for cement bag

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 5476 : 1986 shall apply.

4 MANUFACTURE

4.1 Sacking Cloth

The bags shall be made from single piece of double warp, plain weave sacking cloth conforming to IS 12001 : 1987. For bags with valve, the valve shall also be made from sacking cloth of the same construction as used in the manufacture of bags.

4.2 Seam

The bottom of the bag shall be left open or stitched as agreed to between the buyer and the seller. The stitching of the top and the bottom of the bags shall be on the selvedge with overhead or herakle stitch through two layers of the sacking using 2 strands of jute twine of 380 tex × 3 or single jute yarn of 965 tex for overhead stitch and 2 strands of jute twine of 310 tex × 3 for herakle stitch.

In case of bags manufactured without valve, only the bottom of the bags need to be stitched on the selvedge.

All the stitching shall be of even tension throughout and all the loose ends shall be securely fastened.

The number of stitches per decimeter shall be between 9 and 11.

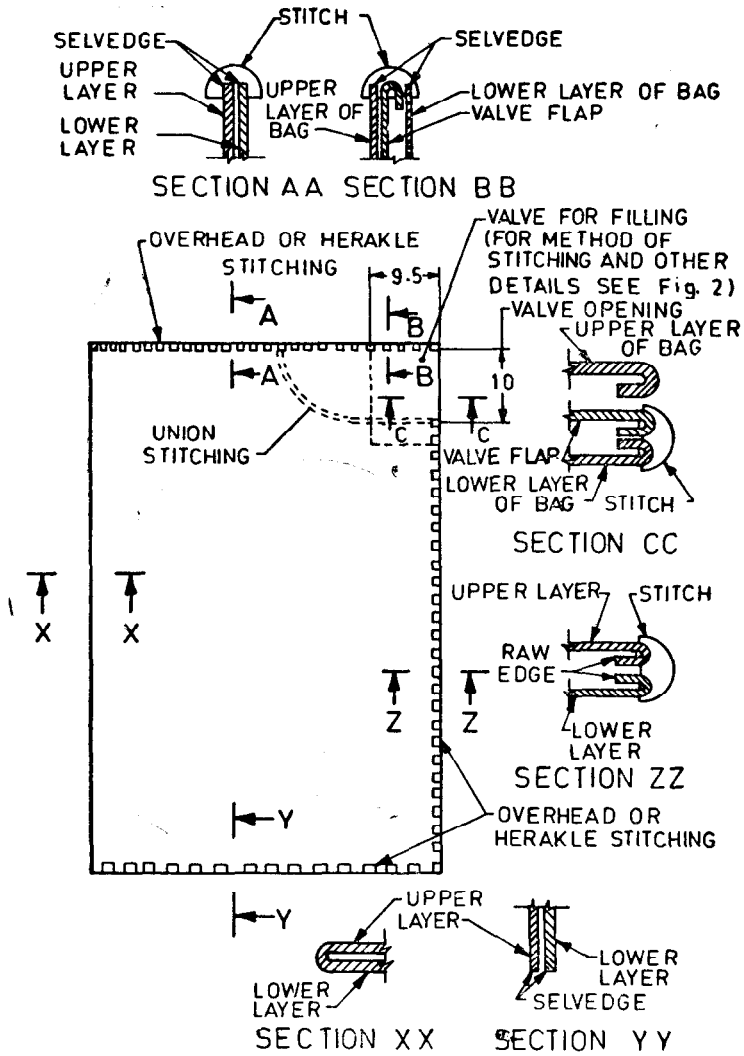
4.2.1 At the side of the bag the raw edges shall be turned to a depth of 3.8 cm and sewn with either overhead or herakle stitches through four layers of sacking (*see* Fig. 1), using 2 strands of jute twine of 380 tex × 3 or single yarn of 965 tex for overhead stitch and using 2 strands of jute twine of 310 tex × 3 for herakle stitch.

5 SPECIFIC REQUIREMENTS

5.1 The bags shall conform to the requirements specified in Table 1.

5.2 The bales containing the bags shall conform to the requirements specified in Table 2.

5.3 The contract moisture regain shall be 20 percent.



NOTE — The valve opening shall be at side corner or at top corner as agreed to between the buyer and the seller.

All dimensions in centimetres.

FIG. 1 JUTE SACKING BAG FOR PACKING CEMENT (WITH VALVE OPENING AT SIDE CORNER)

Table 1 Requirements of Jute Sacking Bags for Packing Cement
(Clause 5.1)

Sl No.	Characteristic	Requirement	Tolerance	Method of Test, Ref to
i)	Dimensions, cm (see Note 1)			8.3.2 of IS 9113 : 1993
	a) Outside length	71	+ 4 0	
	b) Outside width	48		
ii)	Valve dimensions, cm (appli- cable for bags with valve only) (see Note 2)			A-1 of this standard
	a) Effective size (see Fig. 2)	10 × 9.5	+ 3	
	b) Size of valve flap	16.5 × 12	- 1	
iii)	Ends per dm	68	± 4	IS 1963 : 1981
iv)	Picks per dm	39	± 2	IS 1963 : 1981
v)	Mass per bag, g (see Note 3)			8.5.2 of IS 9113 : 1993
	a) For bags with valve	530	+ 55 - 40	
	b) For bags without valve	515	+ 50 - 40	
vi)	Breaking strength of sacking (ravelled strip method, 10 cm × 20 cm), Min, N (kgf)			IS 1969 : 1985
	a) Warpway	1 570 (160)		
	b) Weftway	1 810 (185)		
vii)	Breaking strength of seam, (strip method, 5 cm × 20 cm), Min, N (kgf)			A-2 of this standard
	a) Side	588 (60)		
	b) Top (or top and bottom)	657 (67)		

NOTES

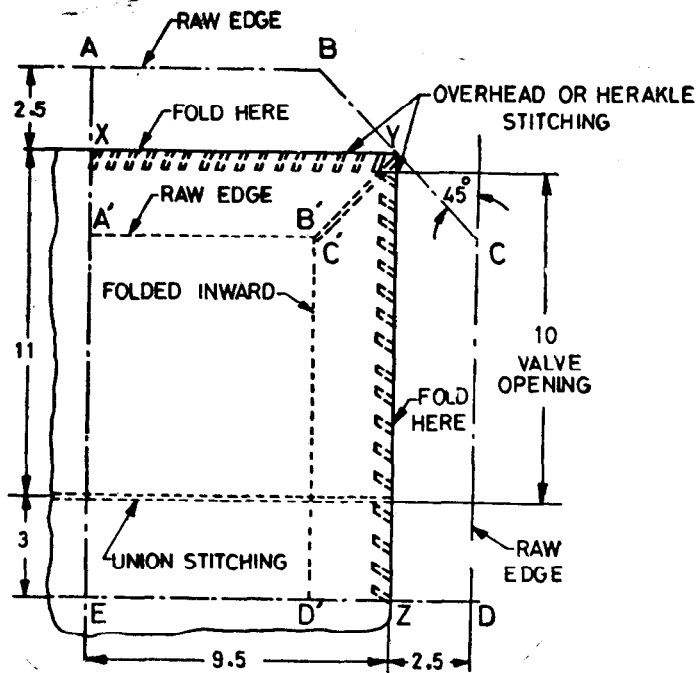
- Length and width different from those specified may be agreed to between the buyer and the seller. However, the same tolerance of + 4 cm shall apply.
- 0
- In the case of bags with valve, the position of valve opening shall be at the side corner or top corner as agreed to between the buyer and the seller.
- Mass of bags of other dimensions shall be proportional to the standard bag of 71 cm × 48 cm weighing 530 g with valve and 515 g without valve, calculated on the basis of the area of the sacking including the seam and also valve and flap in case of bags with valve. However, a tolerance of + 10 percent of bag mass shall be permitted.
- 7.5

Table 2 Requirements of Packed Bales
(Clause 5.2)

Sl No.	Characteristic	Requirement	Method of Test
i)	Total No. of bags per bale (see Note 1)	500 or as agreed to between the buyer and the seller	8.9 of IS 9113 : 1993
ii)	Contract mass of a bale, kg (see note 2)		—
	a) For bags with valve	265	
	b) For bags without valve	258	
iii)	Corrected net mass of a bale	Not less than the contract mass	8.1 of IS 9113 : 1993
iv)	Moisture regain, percent, Max	22	8.2 of IS 9113 : 1993
v)	Oil content on dry deoiled basis, percent, Max	8.0	IS 2969 : 1974

NOTES

- There shall be no joined bag in the bale. The number of bags per bundle shall be 25 or 50 as agreed to between the buyer and the seller.
- The contract mass of a bale is calculated as follows:
Contract mass of bale = nominal mass of a bag × specified number of bags per bale.



NOTES

- 1 The size and shape of the flap before folding and stitching is shown by *ABCDE*.
- 2 The size and shape of the valve as in the bag is shown by *XYZE*.
- 3 *A'B'* shows the side *AB* of the flap after folding.
- 4 *C'D'* shows the side *CD* of the flap after folding.

All dimensions in centimetres.

FIG. 2 METHOD OF MAKING THE VALVE

6 PACKING AND MARKING

6.1 The bags shall be packed in bales as laid down in IS 2873 : 1991 or as specified in the agreement between the buyer and the seller.

6.2 The bales shall be marked as prescribed in IS 2873 : 1991. Additional markings shall be made as stipulated by the buyer or required by the regulation or law in force.

6.3 BIS Certification Marking

The bales may also be marked with the Standard Mark.

6.3.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regula-

tions made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7 SAMPLING AND INSPECTION

7.1 Unless otherwise agreed to between the buyer and the seller, the procedure for sampling and inspection shall be as given in IS 9113 : 1993.

8 CRITERIA FOR CONFORMITY

8.1 The lot shall be considered as conforming to the requirements of the standard, if the conditions as laid down in IS 9113 : 1993 are satisfied.

ANNEX A*(Table 1)***TESTING AND INSPECTION****A-0 ATMOSPHERIC CONDITION FOR TESTING**

A-0.1 All tests may be carried out in the prevailing atmospheric conditions with relative humidity between 40 to 90 percent.

A-1 SIZE OF VALVE AND FLAP

A-1.1 From each sample bag remove the stitches at the top of the bag near the valve. Lay the bag flat on the table, turn the upper layer of the bag, render the bag free from creases and wrinkles and measure the size of the valve to the nearest 0.2 cm.

A-1.2 Remove the stitches and separate from each bag the flap used for manufacturing the valve. Lay the flap flat on the table, render it free from creases and wrinkles and measure the size of flap to the nearest 0.2 cm.

A-2 BREAKING STRENGTH OF SEAM

A-2.1 Test two test specimens from the side and two from top (or top and bottom) of each of the sample bags taking 200 mm between grips with the seam near about the centre in accordance with IS 9030 : 1979. Prepare the test specimens in the form of a double 'T' with 100 mm of seam and 50 mm width of fabric as shown in Fig. 1 of IS 9030 : 1979.

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This Indian Standard has been developed from Doc : No. TX 03 (2650).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002

Telephones : 331 01 31, 331 13 75

Telegrams : Manaksanstha
(Common to all Offices)

Regional Offices :

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg
NEW DELHI 110002

Telephone

{ 331 01 31
{ 331 13 75

Eastern : 1/14 C. I. T. Scheme VIII M, V. I. P. Road, Maniktola
CALCUTTA 700054

{ 37 84 99, 37 85 61
{ 37 86 26, 37 86 62

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022

{ 60 38 43,
{ 60 20 25,

Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113

{ 235 02 16, 235 04 42
{ 235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri (East)
BOMBAY 400093

{ 632 92 95, 632 78 58
{ 632 78 91, 632 78 92

Branch : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR. COIMBATORE.
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