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BUREAU OF INDIAN STANDARDS

AGENDA

Jute & Jute Products Sectional Committee, TXD 03 **41th Meeting**

Date/ Time	Venue
14 August 2024 (Wednesday) 1130 h	Conference Room Bureau of Indian Standards Eastern Regional Office Laboratory (EROL) 1/14, CIT Scheme VII M VIP Road, Kankurgachi Kolkata – 700 054

CHAIRMAN: Shri Moloy Chandan Chakrabortty, IDAS, Jute Commissioner, Ministry of Textiles, Govt. of India

MEMBER SECRETARY: Shri Dharmbeer, Scientist D/Joint Director, Textiles, BIS HQ, New Delhi

Item 0 WELCOME & INTRODUCTORY REMARKS

Item 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

1.1 The minutes of the 40th meeting of the Committee held on 12 March 2024 through hybrid mode were circulated vide BISDG letter no. TXD 03/A 2.40 dated 16 April 2024. No comments were received.

1.1.1 The Committee may APPROVE the minutes as circulated.

Item 2 SCOPE AND COMPOSITION OF TXD 03

2.1 As directed by Competent Authority of BIS, the memberships of the following organizations were terminated due to absence from two consecutive meeting:-

i) Murlidhar Ratan Exports, Kolkata
ii) CSIR- Indian Institute of Toxicology Research, Lucknow

2.1.1 The Committee may **NOTE**.

2.2 The following organization has been co-opted as members of TXD 03 as per the decision of Textiles Division Council (TXDC) meeting held on 04th June 2024 :-

i) Jute Products Development Export Promotion Council, (JDPEDC) Kolkata

2.2.1 The Committee may **NOTE**.

2.3 The present scope and composition of the committee is given at **Annex 1 (Pages 6-7).**

2.3.1 The Committee may **REVIEW**.

Item 3 ISSUES ARISING OUT OF PREVIOUS MEETING OF TXD 03

3.1 Summary of actions taken on the various decisions of the 40th meeting is given at **Annex 2 (Pages 8-10)**.

3.1.1 The Committee may **NOTE**.

Item 4 DRAFT STANDARD FOR FINALIZATION

4.1 As decided by the committee in 40th meeting, the following draft standard was issued in wide circulation for two months for eliciting comments from stake holders vide our reference no. TXD 03/25324 dated 13 June 2024:-

i) TXD 03 (25324), Textiles — Jute Bags for Packing 50 Kg Sugar — Specification (*Second Revision* of IS 15138)

The last date for comments was 12-07-2024.

The draft standard as issued under wide circulation is given at **Annex 3 (Pages 11-20).**

The comments received from Hasting Jute Mills and Eskaps (India) Private Limited are given in **Annex 4 (Page 21)** and Indian Sugar Mill Association are **attached in Annex 5.**

4.1.1 The committee may **DECIDE.**

Item 5 NEW SUBJECT FOR FORMULATION OF INDIAN STANDARD

5.1 Jute Bags for Pouring or Filling of 5 kg, 10 kg and 15 kg Food grains

In the last meeting of TXD 03, the committee requested Indian Jute Mills Association (IJMA) to share the working draft on above subject.

The test report and working draft received from IJMA is given at **Annex 6 (Pages 22-26)** and **is attached Annex 7.**

5.1.1 The committee may DECIDE.

Item 6 COMMENTS ON PUBLISHED STANDARDS

6.1 In the last meeting of TXD 03, the committee decided to include gram per square meter (GSM) of the fabric and requirement of tolerance for ends/dm in the following published standards: -

i) IS 18161 : 2023, Textiles — Light Weight Jute Sacking Bags for Packing 50 kg Mustard Seed, Niger Seed and Ragi — Specification
ii) IS 18162 : 2023, Textiles — Light Weight Jute Sacking Bags for Packing 50 kg Pulses and Soyabean — Specification
iii) IS 18163 : 2023, Textiles — Light Weight Jute Sacking Bags for Packing 35 kg Groundnut with Shell — Specification

The comments received from IJMA and Eskaps (India) Private Limited are given in **Annex 8 (Page 27)** and NAFED Kolkata are **attached in Annex 9.**

6.1.1 The committee may **DECIDE.**

6.2 In the 32nd meeting of the Standing Advisory Committee under the JPM Act, 1987, held on 30.07.2024, several State Procurement Agencies (SPAs) raised concerns about the quality of jute bags as per IS 16186 supplied by jute mills for the public distribution system.

i) IS 16186 : 2014, Textiles — Light Weight Jute Sacking Bags for Packing 50 kg Foodgrains — Specification

The letter dated 07 August received from office of Jute Commissioner is given in **Annex 10 (Pages 28-29).**

6.2.1 The committee may **DECIDE.**

6.3 In the last meeting, the committee decided that IJIRA shall share their inputs on the following standard regarding the weight carrying capacity, tolerance for weight per square meter of the tarpaulin, weaving defects.: -

i) IS 3344 : 2023, Textiles — D.W. Tarpaulin Jute Bags for Packing (Mint) Coins — Specification (First Revision)

The comments received from Eskaps (India) Private Limited and IJIRA are given in **Annex 11 (Pages 30-31).**

6.3.1 The committee may **DECIDE.**

6.4 Indian Jute Mills Association vide email dated 14 June 2024 provide the comments on the following standard:-

i) IS 2873 : 1991, Textiles – Packaging of jute products in bales – Specification (second revision)

The comments received from IJMA along with test report and draft standard is given in **Annex 12 (Pages 32-42).**

It is also informed that IJIRA has been given R& D Project TXD 0172 -To study the packaging practices of jute and jute products for internal and exports trades for Revision of IS 2873:1991. The interim report received from IJIRA is given in **Annex 13 (Pages 43-48).**

6.4.1 The committee may **REVIEW** and **DECIDE.**

Item 7 REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS

7.1 As per procedure of BIS, standards which were published/reaffirmed five years ago or earlier are required to be reviewed to assess adequacy of the requirements specified. Review is carried out keeping in view the changes in technology, current industrial practices and the needs/expectations of the consumers/users so as to decide regarding further reaffirmation/revision/withdrawal/amendment/archive of the standards under review.

The following Indian Standards is due for review in 2023-2024: -

Sl No	IS No.	Title	Due Date
1	IS 271 : 2020	Textiles - Grading of White, Tossa and Daisee Uncut Indian Jute (Fifth Revision)	March 2025

In the last meeting, the committee decided that Office of Jute Commissioner Office shall do necessary consultation with all relevant stakeholders like Jute Farmers Association, Jute Baler Association, IJMA, NINFET, IJIRA, JCI, CACP, Ministry of Agriculture, Ministry of Textiles etc.

A meeting was held under the Chairmanship of Dy. Jute Commissioner on 09.05.2024 in the O/o the Jute Commissioner, Patsan Bhawan, Kolkata for the **Review of Indian Standard - Grading of White, Tossa and Daisee Uncut Indian Jute (IS 271: 2020).**

The minutes of panel meeting for review of IS 271 is given at **Annex 14 (Pages 49-53).**

7.1.1 The committee may **DECIDE.**

7.2 In the last meeting of TXD 03, the committee DECIDED to constitute a panel to through study and review of the following pre-2000 standard : -

Sl. No.	IS No	Title
1)	IS 3790 : 1991	Textiles – Hessian bags – Specification (second revision)
2)	IS 4744 : 1991	Textiles – Packaging of jute products in rolls – Specification (first revision)
3)	IS 4900 (Part 1 to 3) : 1984	Specification for jute carpet backing fabric (first revision)

The panel meeting for review Pre-2000 standards was held on 08.07.2024 under Convenorship of Shri Soumyadipta Datta, Office of Jute Commissioner in hybrid mode at Patsan Bhawan, Kolkata

The minutes of panel meeting for review of pre-2000 standards are given at **Annex 15 (Pages 54-57).**

7.2.1 The Committee may **CONSIDER** and **DECIDE**.

Item 8 DATE AND PLACE OF NEXT MEETING

Item 9 ANY OTHER BUSINESS

ANNEX 1
(Item 2.1)

Scope & Composition of Jute & Jute Products Sectional Committee, TXD 03

Scope: To formulate Indian Standards for terminology, grading, specifications and packaging for jute, Mesta and other related bast fibres and their products.

Meetings held	**Date and Place**
39th Meeting	01 September 2023 (through Cisco Webex)
40th Meeting	12 March 2024 (through Cisco Webex)

SL NO.	ORGANIZATION REPRESENTED	NAME OF THE REPRESENTATIVE PRINCIPAL/(ALTERNATE)	ATTENDANCE
1.	Office of the jute commissioner, Kolkata	**Shri Moloy Chandan Chakraborthy (Chairman)**	2/2
2.	Caledonian Jute and Industries Ltd, Kolkata	Shri Pankaj Kumar Chatterjee	1/2
3.	Department of Jute & Fibre Technology, Institute of Jute Technology, University of Kolkata	Prof. S. K. Ghosh (Prof A. K. Sinha)	1/2
4.	E.I.D. Parry (India) Ltd, Chennai	Shri T. Kannan	1/2
5.	Eskaps (India) Pvt. Ltd., Kolkata	Shri Satyajit Chakraborty (Shir Laba Kumar Das)	1/2
6.	Food, Civil Supplies & Consumer Protection Department, Govt of Chhattisgarh	Shri Dilip Jaiswal (Shri Shashank Singh)	0/2
7.	Food Corporation of India, New Delhi	Shri Kaushik Das (Shri S. Vijay Kumar)	2/2
8.	Food Supplies and Consumer Welfare, Govt of Odisha	Shri Somen Nayak	2/2
9.	Food, Civil Supplies and Consumer Affairs Department, Govt of Haryana	Nomination Awaited	1/2
10.	Food, Civil Supplies & Consumer Protection Department, Govt of M P	Nomination awaited	1/2
11.	Food, Civil Supplies &	Shri Anand Sagar Sharma	2/2

	Consumer Protection Department, Govt. of Punjab	(Smt. Renu Bala)	
12.	Gloster Limited, Kolkata	Shri Tanmoy Singha	2/2
13.	Hukumchand Jute Mills, Kolkata	Shri R K Srivastav (Shri Bijan Sarkar)	1/2
14.	ICAR-Central Research Institute for Jute and Allied Fibers (CRIJAF), Kolkata	Dr. Gouranga Kar	1/2
15.	ICAR-National Institute of Natural Fibre Engineering and Technology (NINFET), Kolkata	Dr Surajit Sengupta (Shri Manik Bhowmick)	2/2
16.	Indian Jute Industries Research Assn., Kolkata	Shri Partha Sanyal (Smt. Soumita Chowdhury)	2/2
17.	Indian Jute Mills Association, Kolkata	Shri Samir Kr Chandra (Shri Bhudipta Saha)	2/2
18.	Indian Sugar Mills Association, New Delhi	Ms. Bharati Balaji (Ms. Priya Chakraborthy)	1/2
19.	Jute Products Development Export Promotion Council, (JDPEDC) Kolkata	Nomination Awaited	0/0
20.	Ministry of Consumer Affairs, Food and Public Distribution, Govt of India	Shri Vishwajeet Halder (Shri Rakesh Kumar Meena)	2/2
21.	Ministry of Textiles, New Delhi	Shri Purnesh Gurunani Director (Jute)	2/2
22.	National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), Kolkata	Smt. Anindita Guha	1/2
23.	National Jute Board, Kolkata	Shri Mahadeb Dutta	1/2
24.	National Jute Manufacturers Corporation Ltd, Kolkata	Shri I. A. Mondal	1/2
25.	Office of the Jute Commissioner, Kolkata	Shri Soumyadipta Datta	2/2
26.	SGS India, Gurgaon	Shri Shailesh Sharma (Shri Bhasker Sen)	1/2
27.	The Jute Corporation of India Ltd, Kolkatta	Shri Kalyan Majumdar (Shri A Majumdar)	1/2
28.	West Bengal Pollution Control Board, Kolkatta	Shri Subrata Ghosh (Shri Qazi Hasan)	1/2

ANNEX 2
(Item 3.1)

SUMMARY OF ACTIONS TAKEN ON THE MINUTES OF THE LAST MEETING

Item No.	Decision	Action taken
2.1	Certain modifications were suggested in the composition of the committee.	Updated composition is given in **Annex 2**
4.1	**Item 4 PRELIMINARY DRAFT FOR APPROVAL FOR WIDE CIRCULATION** **Textiles – Jute Shopping Bag – Specification** The committee decided National Jute Board in consultation with IJIRA and SGS will provide the inputs for the speed of CRE type Breaking Strength Tester.	The document is being sent for wide circulation.
5.1	**Item 5 COMMENTS ON PUBLISHED STANDARDS** The committee decided to issue amendment in the following standards after including GSM of fabric, requirement of tolerance for ends/dm :- i) IS 18161: 2023, Textiles — Light Weight Jute Sacking Bags for Packing 50 kg Mustard Seed, Niger Seed and Ragi — Specification ii) IS 18162: 2023, Textiles — Light Weight Jute Sacking Bags for Packing 50 kg Pulses and Soyabean — Specification iii) IS 18163: 2023, Textiles — Light Weight Jute Sacking Bags for Packing 35 kg Groundnut with Shell — Specification	Coming up for the discussion under Item **6.1**
5.2	**Item 5 COMMENTS ON PUBLISHED STANDARDS** **IS 3344 : 2023, Textiles — D.W. Tarpaulin Jute Bags for Packing (Mint) Coins — Specification (First Revision)** The committee decided that IJIRA shall share their inputs regarding the weight carrying capacity, tolerance for weight per square meter of the tarpaulin, weaving defects.	Coming up for the discussion under Item **6.3**
5.3	**Item 5 COMMENTS ON PUBLISHED STANDARDS**	Coming up for the

	IS 15138 : 2010 Textiles — Jute Bags for Packing 50 Kg Sugar — Specification (*first revision*) The committee decided that IJMA will share their technical inputs on dimensions of bag and liner, thickness, weight and material of liner or any other information required for revision of IS 15138.	discussion under Item **4.1**
6.1	**Item 6 REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS** **IS 271: 2020 Textiles – Grading of White, Tossa and Daisee Uncut Indian Jute (Fifth Revision)** The committee decided that Office of Jute Commissioner Office shall do necessary consultation with all relevant stakeholders like Jute Farmers Association, Jute Baler Association, IJMA, NINFET, IJIRA, JCI, CACP, Ministry of Agriculture, Ministry of Textiles etc. for revised grading system of raw jute, if necessary.	Coming up for the discussion under Item **7.1**
6.2	**Item 6 REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS** The committee decided the BIS shall prepare the draft revision of the following standards and the same shall be issued in wide circulation: - i) IS 14342: 1996 Textiles - Jute yarn/twine - Packaging code ii) IS 1943: 1995 Textiles – A-twill jute bags (second revision). iii) IS 2566: 1993 Textiles – B-twill jute bags for packing foodgrains – Specification (third revision) iv) IS 3667: 1993 Textiles – B-twill jute cloth – Specification (second revision)	The document is being sent for wide circulation.
	Item 6 REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS The committee DECIDED to reaffirm the following standard :- i) IS 9685: 2002 Textiles – Sand bags – Specification (first revision)	Standard Reaffirmed.

6.2	**Item 6 REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS** The committee DECIDED to constitute a panel to through study and review of following pre-2000 standards:- i) IS 3790: 1991 Textiles – Hessian bags – Specification (second revision) ii) IS 4744: 1991 Textiles – Packaging of jute products in rolls – Specification (first revision) iii) IS 4900 (Part 1 to 3): 1984 Specification for jute carpet backing fabric (first revision)	Coming up for the discussion under Item **7.2**

ANNEX 3

(Item 4.1)

DRAFT STANDARD FOR FINALIZATION

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDRADS

Draft for comments only Doc No.: TXD 03 (25324)

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भारतीय मानक मसौदा

वस्त्रादि – 50 किलोग्राम शुगर पैक करने के लिए पटसन के बोरे – विशिष्टि

(आई एस 15138 का *दूसरा पुनरीक्षण*)

Draft *Indian Standard*

Textiles — Jute Bags For Packing 50 Kg Sugar — Specification

(*Second Revision* of IS 15138)

ICS: 55.080; 59.060.10; 67.180.10

Jute and Jute Products Sectional Committee, TXD 03	last date for receipt of comments is 04 July 2024

FOREWORD
(Formal clauses will be added later)

This standard was first published in 2002 and revised in 2010 to incorporate the following major changes:

a) Tolerances on length, width and mass of bag have been reduced for improved structure and serviceability;
b) Sampling and criteria for conformity have been modified; and
c) Classified major and minor defects have been incorporated to minimize failures during storage and end use.

This second revision has been made in the light of experience gained since its last revision and to incorporate the following changes:

i) All amendments have been incorporated.

ii) New variety of jute bag Type D and Type E bag have been incorporated.
iii) Sampling and criteria for conformity has been modified.
iv) BIS certification clause has been updated.
v) Packing and marking clause has been updated.
vi) References to Indian standards have been updated.

The types of bags specified in this standard have been developed after extensive trials keeping in view the guidelines provided by the International Labour Organization (ILO) for not permitting manual carriage of weight exceeding 50 kg by the workers and consumers for their safety. In addition, care has been taken to restrict the use of batching oil in the manufacture of bags to safer limit so as to minimize its adverse impact on the contents. One of the varieties also specifies a food grade loose liner to be used in order to protect the contents from adverse impact of oil and moisture.

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 : 2022 'Rules for rounding off numerical values (*second revision*).' The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1 SCOPE

This standard prescribes constructional details and other requirements of five types of jute bags for packing 50 kg sugar.

2 REFERENCES

The standards listed in Annex A 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 at Annex A.

3 TERMINOLOGY

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

4 MANUFACTURE

4.1 Fabric

Type A bags shall be made from single piece of 568 g/m^2 double warp, plain weave jute fabric of

uniform construction with warp running along the length of the bag. Type B and Type C bags shall be made from hessian having mass of 417 g/m^2 and 354 g/m^2 respectively. Type D and Type E shall be made from shuttle-less rapier loom with single warp and double weft of single piece of 441 g/m^2 and 408 g/m^2 respectively. The cloth shall be without stripes or shall have stripes as agreed to between the buyer and the seller, woven along the length of the bag.

NOTE — Mass of fabric is for guidance only.

4.1.1 The jute bags used for packing food items, such as sugar shall be manufactured from raw jute of Indian origin.

4.2 Seam

The sides of Type A bag shall be herakle stitched with safety stitch as specified in **5.1.4** of IS 9113. The side of Type B and Type C bags shall be sewn with herakle stitches on selvedge through two layers and the bottom raw edge shall be folded inside to a depth of at least 3.8 cm and then stitched at the mouth as specified in **5.1.3** of IS 9113. Type D and Type E are hemmed and both sides herakle stitched. The number of stitches per 10 cm shall be between 9 and 11.

4.3 Hemming at the Mouth

Provisions of **5.1.3** of IS 9113 shall apply.

4.4 Freedom from Defects

The bags shall meet the requirement of freedom from defects as given in Annex B.

4.5 Liner

Type C and Type E bags shall be provided with minimum 25µm thick loose liner made of food grade virgin high molecular high-density polyethylene (HMHDPE) conforming to IS 10146.

5 SPECIFIC REQUIREMENTS

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

5.2 Tolerance

The following tolerance shall be permitted on outside length, outside width, ends/dm, picks/dm and corrected mass per bag as given in Table 1.

Sl No.	*Characteristic(s)*	*Tolerance*				
		Type A Bag	Type B Bag	Type C Bag	Type D Bag	Type E Bag
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Outside length and outside width, cm	← +3 →			+4 -0	+4 -0
ii)	Ends/dm	+4 -2	±2	±2	±2	±2
iii)	Picks/dm	+2 -1	+2 -1	+2 -1	±2	±2
iv)	Corrected mass per bag, percent, *Max*	+7.5 -6.0	+7.5 -2.0	+7.5 -2.0	+8 -6	+8 -6

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

6 PACKING

The bags shall be packed in bales as prescribed in IS 2873 or as specified in the agreement between the buyer and the seller.

7 MARKING

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

Table 1 Requirements of Bags

(*Clause* 5.1)

Sl No.	**Characteristic**	**Requirement**					**Method of Test (Ref to Cl of IS 9113)**
		Type A Bag	Type B Bag	Type C Bag	Type D Bag	Type E Bag	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(6)
i)	Dimensions, cm (*see* Note 1)						
	a) Outside length	87.5	91.5	91.5	90	90	8.3.2
	b) Outside width	58.5	56.0	56.0	59	59	8.3.2
ii)	Ends/dm	68	47	47	52	50	8.4.2
iii)	Picks/dm	31	55	47	52	50	8.4.2
iv)	Corrected mass per bag, g	630	475	405 +32 linear	506	470 +33 Liner	8.5.2

v)	Average breaking load of sacking (ravelled strip method, 10 cm × 20 cm), *Min*, N (kgf) :						
	a) Warpway	1570 (160)	1470 (150)	1470 (150)	1225 (125)	1225 (125)	8.6.2
	b) Weftway	1420 (145)	1765 (180)	1420 (145)	1225 (125)	1225 (125)	
vi)	Average breaking load of seam (ravelled strip method, 5.0 cm × 20.0 cm), *Min*, N (kgf) :						
	a) Warpway	-	490 (50)	490 (50)	-	-	8.7
	b) Weftway	440 (45)	685 (70)	490 (50)	440 (45)	440 (45)	
vii)	Moisture regain:						
	a) Moisture regain, percent, *Max* (*see* Note 2)	22	17	17	22	22	8.2
	b) Contract moisture regain, percent	20	16	16	20	20	-

NOTES

1 The bags of specified dimensions are suitable for packing of sugar. However, other dimensions as per agreement between the buyer and the seller may also be used provided the tolerance on dimensions and bag mass as given in **5.2** is complied with. The mass of such bags shall be calculated by the method given in **5.3** of IS 9113.

2 Average moisture regain shall be maximum 22 percent. However, 10 percent of the individual value of moisture regain percent may be above 22 percent with an upper limit of 26 percent

Table 2 Requirements of Packed Bales

(*Clause* 5.3)

Sl No.	**Characteristic**	**Requirement**	**Method of Test (Ref to Cl of IS 9113)**
(1)	(2)	(3)	(4)
i)	Total number of bags per bale (*see* Note)	500	8.9
ii)	Number of bags per bundle	25	-
iii)	Number of joined bags per bundle of 25 bags, *Max*	1	-
iv)	Contract mass of a bale, kg	315 (Type A) 237.5 (Type B) 218.5 (Type C) 253.0 (Type D) 251.5 (Type E)	-
v)	Corrected net mass of a bale	Not less than the contract	8.1

		mass	
vi)	Oil content on dry deoiled material basis, percent, *Max*	3	8.8
NOTE — The number of bags per bale shall be 500 or as specified in an agreement between the buyer and the seller			

Additional markings including the country of origin shall be made as stipulated by the buyer or required by the regulation or law in force.

7.1 BIS Certification Marking

7.1.1 The bales and the jute bag may also be marked with the Standard Mark.

7.1.2 The jute bags conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the jute bags may be marked with the Standard Mark.

8 SAMPLING AND CRITERIA FORCONFORMITY

8.1 Lot

All bales of jute bags of same size produced under similar conditions of production and delivered to a buyer against one dispatch note shall constitute a lot.

8.2 Sample Size and Criteria for Conformity

For assessing the conformity of lot to the requirements of this standard, bales shall be first selected from each lot at random in accordance with the col 2 and col 3 of Table 3. All the bales so selected in the sample shall be tested for 'Gross mass of bales', 'Tare mass of bailing hoops and other packing materials' and 'Number of bundles per bale'. Two bundles of bags selected at random from each bale selected in the sample shall be tested for total number of bags per bundle.

The lot shall be considered as conforming to the requirements of this standard, if all the following
conditions are satisfied:

a) The total corrected net mass of all the bales in the sample is not less than the total contract mass of all the bales.

b) The total number of bags in each bale selected as per **8.2** under test meets the relevant requirement.

8.3 Sample Size for Bags

For freedom from defects, length, width, ends/dm, picks/dm, number of stitch/dm, mass per bag and moisture regain, 07 bags shall be selected at random from each of the bales selected as per **8.2**. The total number of bags to be tested from each lot for these requirements is given in col 5 of Table 3

8.4 Criteria for Conformity

8.4.1 *Criteria for Conformity for Freedom from Defects*

Each bag selected in the sample shall be tested for freedom from defects. A bag shall be termed as
defective, if it contains two or more major defects (*see* Annex B). A lot shall be considered conforming to this requirement, if the number of defectives is less than or equal to the acceptance number given in col 6 of Table 3. Acceptance numbers given in Table 3 are on the basis of an AQL of 4.0 percent.

8.4.2 *Criteria for Conformity for Length, Width, Ends/dm, Picks/dm, Number of Stitches/dm and Moisture Regain*

The lot, which meets requirements of **8.4.1**, shall be tested for length, width, ends/dm, picks/dm, number of stitches/dm and moisture regain as per the plan. A bag shall be termed as defective, if it fails to meet any one or more of these requirements. The lot shall he considered as conforming to the requirements of length, width, ends/dm, picks/dm, stitches/dm and moisture regain, if the total number of defectives found in the sample is less than or equal to the corresponding acceptance number given in col 6 of Table 3.

8.4.3 *Criteria for Conformity for Mass of Fabric*

The lot, which meets the above requirement, shall then be tested for mass of fabric. The lot shall be declared as conforming to this requirement, if

a) the average value of mass per bag, as obtained for sampled bags is not less than the nominal value specified; and

b) not more than 10 percent of the individual values of mass of bags is below the lower specified value.

8.5 Sample Size and Criteria for Conformity for Breaking Strength Requirement

The lot, which meets the above requirements, shall then be tested for breaking strength requirements. For this purpose, one bag shall be selected at random from each bale selected in the sample. Suitable test specimens shall be taken from these bags and tested for warpway, weftway and seam strength. The lot shall be declared as confirming to these requirements, if

a) the average values of warpway, weftway and seam breaking strengths respectively, as obtained for all test specimens are not less than the corresponding values specified; and

b) none of the individual value is less than 20 percent below the specified value.

8.6 Sample Size and Criteria for Conformity for Oil Content

The lot, which meets the above requirements, shall then be tested for oil content. For this purpose two bags shall be selected out of two different bales selected as per **8.2**. The lot shall be declared as conforming to this requirement, if both the bags meet the requirement of oil content.

8.7 The lot shall be considered as conforming to the requirements of this standard, if **8.2** and **8.4** to **8.6** are satisfied.

Table 3 Sample Size and Acceptance Numbers

(*Clauses* 8.2, 8.3, 8.4.1 *and* 8.4.2)

Sl No.	No. of Bales in the Lot	No. of Bales in the Sample	For Length, Width, Number of Stitches/dm, Ends/dm, Picks/dm, Moisture Regain		
(1)	(2)	(3)	(4)	(5)	(6)
i)	Up to 25	5	07	35	5
ii)	26 to 90	8	07	56	6
iii)	91 to 300	12	07	84	8
iv)	301 to 500	18	07	126	10

NOTES
1 If the number of bales in a consignment exceeds 500, the same shall be split into number of lots each comprising maximum of 500 bales.
2 Joined bags shall also be drawn for visual inspection and breaking strength.

ANNEX A
(*Clause* 2)

LIST OF REFERRED STANDARDS

IS No.	*Title*
IS 2873 : 1991	Textiles — Packaging of jute products in bales — Specification (*second revision*)
IS 5476 : 2023	Jute — Glossary of Terms (*second revision*)
IS 9113 : 2012	Textiles – Jute sacking – General requirements (*second revision*)
IS 10146 : 1982	Specification for polyethylene for its safe use in contact with foodstuffs, Pharmaceuticals and drinking water

ANNEX B

(*Clauses* 4.4 and 8.4.1, and *Table* 4)

CLASSIFICATION OF DEFECTS

B-1 The detailed classification of defects is given in Table 4.

Table 4 Classification of Defects

Sl No.	**Type of Defect**	**Description**		**Major**	**Miner**
(1)	(2)	(3)		(4)	(5)
i)	GAW	Portion over the whole width of the fabric completely unwoven with weft	>1.5 cm	x	-
			0.5-1.5 cm	-	X
ii)	Multiple broken/missing warp (End)	Two or more contiguous, regardless of length		x	-
iii)	Multiple broken weft (Pick)	Two or more contiguous, regardless of length		x	-
		One pick, full width		-	X
iv)	Cut, hole, tear or patch	Two or more warp or filling threads ruptured at adjoining points		x	-
v)	Float	A place in the fabric where warp and weft yarns escape the required interlacement	>2 cm^2	x	-
			0.5 cm^2 to cm^2	-	X
vi)	Gap stitching	Stitches missing	> 1.5 cm	x	-
			0.5-1.5 cm	-	X
vii)	Corner gap	Corner of the bag not properly	> 1.5 cm	x	-

		stitched resulting in formation of hole	0.5-1.5 cm	-	X
viii)	Mildew	Staining of fabric due to fungal or bacterial growth visible to naked eye		x	-
NOTE — Two minor defects shall be counted as one major defect.					

ANNEX 4

(Item 4.1)

DRAFT STANDARD FOR FINALIZATION

Comments - TXD 03 (25324), Textiles — Jute Bags For Packing 50 Kg Sugar — Specification (Second Revision of IS 15138)

1) Shri Avijit Das, Hasting Jute Mills, Kolkata

Clause reference no	**Draft standard propose**	**Our comments**	**Justification**
Table 1 Sl. No. ii)	Type D: Ends /dm:52 Type E: Ends /dm : 50	Type D: Ends /dm: 50 Type E: Ends /dm : 50	Warp way breaking load for both Type D and Type E is 125 kgf.
4.1	Type D : To run in shuttle less loom only Type E : To run in shut less loom only	Type D : To run in both shuttle less and conventional loom Type E : To run in both shuttle less and conventional loom	If both construction and breaking load in warp way and weft way meet the acceptance norm, the barrier of nature of loom is irrelevant.
Table 3	Sample size and acceptance no.	Sample size and acceptance no.	
	Lot size sample Acceptance	Lot size sample Acceptance	a) Type A,B and C is made from
	Bales No.	Bales No.	Double warp and single weft
	Up to 25 5 5		Insertion in conventional loom.
	26 to 90 8 6	Up to 130 10 10	b) Type D and E is made from single
	91 to 300 12 8	131 to 390 14 12	Warp and double weft insertion in
	301 to 500 18 10	390 to 600 18 14	In Shuttle- less high speed rapier loom.
	Note: For both conventional and shuttle less loom	Note: For Shuttle less loom	Hence ,minor floats appear unlike conventional loom.
8.2	Two bundles of bags selected in the sample shall be tested for total no. of bags per bundle.	Two bundles of bags selected in the sample shall be tested and if the no. of bags per bundle is less up to by 1no. only, out of total no. of bundles checked, then the lot will be considered for conformity.	Acceptance no. against no. of bags per bundle for whole lot is silent in this draft standard.
Table 4,	A place in the fabric where warp	A place in the fabric where warp	Type D and E is made from double weft
Serial no.5	and weft yarns escape the	and weft yarns escape the	Shuttle-less high-speed rapier loom.
	required interlacement: greater	required interlacement: greater	
	than or equal to 2 sq.cm is major defect	than or equal to 5 sq. cm is major defect.	
		Note: Applicable to Type D and E only	

2) Shri Satyajit Chakraborty, Eskaps India Pvt. Ltd., Kolkata

A] In Specification IS 15138, the method of test for Ends/dm and Picks/dm under Table 1 (Sl No. ii & iii) should be Cl 8.4.1 , instead of Cl 8.4.2 , of IS 9113: 2012.

B] In Specification IS 15138, the Oil content on a dry de-oiled material basis, should be mentioned under Table 1 (Requirements of Bags) instead of Table 2 (Requirements of Packed Bales).

ANNEX 6

(Item 5.1)

NEW SUBJECT FOR FORMULATION OF INDIAN STANDARD

JUTE BAGS FOR POURING OR FILLING OF 5 KG, 10 KG AND 15 KG FOOD GRAINS

TEST REPORT RECEIVED FROM IJMA

Test Report

To
Mr. Bhudipta Saha,
Technical Head
Indian Jute Mills Association,
Royal Exchange
6, Netaji Subhas Road,
Kolkata – 700 001

Date: 13.05.2024

Reference: e-mail dated 07.05.2024 and Gloster Limited test request letter dated 05.05.2024
Report No:- TT/014/24-25
Type of Samples – 5 types of jute bag
Sample received from – Gloster Limited

Test Results

Sl. No	Teste Parameters	Value		Standard Followed
		5 kg. corner fold, 35×35×10 cm 12×12, Q.C. 32965	10 kg. corner fold, 45×38×15 cm 12×12, Q.C. 32966	
1	Capacity with rice(kg)	5	10	IS 16372 : 2015
2	Outside length (cm) Average Range	35.2 (35.0 – 35.5)	45.5 (45.0 – 46.0)	
3	Outside width (cm) Average Range	35.1 (35.0 – 35.5)	38.0 (-)	
4	Corner Fold/Gusset (cm) Average Range	10.7 (10 – 12)	15.3 (15 – 16)	
5	Ends/dm Average Range	48 (--)	48 (--)	
6	Picks/dm Average Range	47 (--)	47 (--)	
7	Bag weight(g) at 16% MR Average	121.96 (118.13 – 125.58)	166.25 (155.38 – 168.15)	

	Range				
8	MR%		9	9	
9	Avg. Tensile strength (10×20) cm	Warp Way Average	138.5 kg/1358.7 N	114 kg/ 1118.3 N	
		Range	(137-140)kg/(1344-1373.4)N	(111-117)kg/(1088.9-1147.8)N	
		Weft Wat Average	166 kg/162805 N	159.50kg/1564.7N	
		Range	(155-177)kg/(1520.6-1736.4)N	(149-170)kg/(1461.7-1667.7)N	
10	Seam Strength (5×20) cm	Average	13 kg/127.5 N	17.5 kg/ 171.7N	
		Range	(12-14)kg/(117.7-137.3)N	(17-18)kg/(166.8-176.6)N	
		Types of Break	Only edge	Only edge	
11	Oil Content		1.48	1.51	
12	Hang test with load for 1 hour		No damage	No damage	--

Notes:

1. This report is for your private use only and should not be used for publicity or litigation.
2. Authenticity of this report could be validated with the office copy at IJIRA, Kolkata.
3. Photocopies of this report should not be taken and circulated for commercial purpose.
4. Above test results have been obtained from same sample as supplied by client.
5. Test report shall not be reproduced in full without written approval of the institute.
6. All tensile tests are carried out at 65 ± 2% RH and 27 ± 2 °C temperature

Test Report

To
Mr. Bhudipta Saha,
Technical Head
Indian Jute Mills Association,
Royal Exchange
6, Netaji Subhas Road,
Kolkata – 700 001

Date: 13.05.2024

Reference: e-mail dated 07.05.2024 and Gloster Limited test request letter dated 05.05.2024
Report No:- TT/014/24-25
Type of Samples – 5 types of jute bag
Sample received from – Gloster Limited

Test Results

Sl. No	Teste Parameters		Value		Standard Followed
			15 kg. corner fold, 50×40×20 cm 12×12, Q.C. 32967	10 kg. Gusset, 43×35×15 cm 12×12, Q.C. 32968	
1	Capacity with rice(kg)		15	10	IS 16372 : 2015
2	Outside length (cm) Average Range		50.0 (-)	43.7 (43.5 – 44.0)	
3	Outside width (cm) Average Range		39.1 (39.5 – 40)	34.9 (35.5 – 35.0)	
4	Corner Fold/Gusset (cm) Average Range		20.4 (20 – 21)	15.5 (15.3 – 16.0)	
5	Ends/dm Average Range		48 (--)	51.2 (51-52)	
6	Picks/dm Average Range		46.7 (46-47)	45.7 (45-46)	
7	Bag weight(g) at 16% MR Average Range		191.13 (184.11 – 197.95)	219.02 (211.78 – 225.61)	
8	MR%		9		
9	Avg. Tensile strength (10×20) cm	Warp Way Average Range	125.5 kg/1231.2 N (124-127)kg/(1216.4-1245.9)N	156 kg/ 1530.4 N (151-161)kg/(1481.3-1579.4)N	
		Weft Wat Average Range	150 kg/1471.5 N (139-161)kg/(1363.6-1579.4)N	128.5kg/1260.6N (121-136)kg/(1187-	

				1334.2)N	
10	Seam Strength (5×20) cm	Average Range	12.5 kg/122.6 N (11-14)kg/(107.9-137.3)N	14.0 kg/ 137.4N (-)	
		Types of Break	Only edge	Only edge	
11	Oil Content		1.43	1.39	
12	Hang test with load for 1 hour		No damage	No damage	--

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Test Report

To
Mr. Bhudipta Saha,
Technical Head
Indian Jute Mills Association,
Royal Exchange
6, Netaji Subhas Road,
Kolkata – 700 001

Date: 13.05.2024

Reference: e-mail dated 07.05.2024 and Gloster Limited test request letter dated 05.05.2024
Report No:- TT/014/24-25
Type of Samples – 5 types of jute bag
Sample received from – Gloster Limited

Test Results

Sl. No	Teste Parameters	Value	Standard Followed
		15 kg. Gusset, 50×35×20 cm 12×12, Q.C. Not mentioned	
1	Capacity with rice(kg)	15	
2	Outside length (cm) Average Range	50.8 (50.0 – 51.0)	
3	Outside width (cm) Average Range	35.1 (35 – 35.5)	
4	Corner Fold/Gusset (cm) Average	20.8 (20 – 21.5)	

	Range			
5	Ends/dm	Average Range	51.3 (51 - 52)	
6	Picks/dm	Average Range	45.9 (45 - 46)	IS 16372 : 2015
7	Bag weight(g) at 16% MR Average Range		265.31 (257.54 – 277.76)	
8	MR%		9	
9	Avg. Tensile strength (10×20) cm	Warp Way Average Range	156.0 kg/1530.4 N (151.0 – 161.0)kg/(1481.3 – 1579.4)N	
		Weft Wat Average Range	161.0 kg/1579.4 N (158 - 164)kg/(1550 – 1608.8)N	
10	Seam Strength (5×20) cm	Average Range	12.0 kg/117.7 N (-)	
		Types of Break	Only edge	
11	Oil Content		1.45	
12	Hang test with load for 1 hour		No damage	--

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ANNEX 8
(Item 6.1)

COMMENTS ON PUBLISHED STANDARDS

Comments on IS 18161 : 2023 Light Weight Jute Sacking Bags for Packing 50 kg Mustard Seed, Niger Seed and Ragi, IS 18162 : 2023, Light Weight Jute Sacking Bags for Packing 50 kg Pulses and Soyabean,IS 18163 : 2023, Light Weight Jute Sacking Bags for Packing 35 kg Groundnut with Shell

a) **Shri Bhudipta Saha, Indian Jute Mills Association, Kolkata**

kindly note the GSM of the cloth as below

IS 18161 : 2023 - 591
IS 18162 : 2023 - 459
IS 18163 : 2023 – 436

b) **Shri Satyajit Chakraborty, Eskaps India Pvt. Ltd., Kolkata**

1] In Specification **IS 18161: 2023** , A] The nominal mass (GSM) of the used Jute Fabric should be 596 g/m2 , which was not mentioned in the respective specification. B] In Table 2, under serial No. (v), the number of joined bags per bundle of 25 bags should be 1 (Maximum) instead of 1 only.

2] In Specification **IS 18162: 2023** , A] The nominal mass (GSM) of the used Jute Fabric should be 464 g/m2 , which was not mentioned in the respective specification. B] In Table 2, under serial No. (v), the number of joined bags per bundle of 25 bags should be 1 (Maximum) instead of 1 only.

3] In Specification **IS 18163: 2023** , A] The nominal mass (GSM) of the used Jute Fabric should be 441 g/m2 , which was not mentioned in the respective specification. B] In Table 2, under serial No. (v), the number of joined bags per bundle of 25 bags should be 1 (Maximum) instead of 1 only.

ANNEX 10
(Item 6.2)

COMMENTS ON PUBLISHED STANDARDS

Comments on IS 16186 : 2014, Textiles — Light Weight Jute Sacking Bags for Packing 50 kg Foodgrains — Specification

OFFICE OF JUTE COMMISSIONER, KOLKATA

File No. Jute (T)-TX/03/A/2/78/2017- XXII (E)-Part(1)P(3) **Dated 07th August 2024**

To
Shri J. K. Gupta
Scientist -E, Head, Standardization (Textiles)
Bureau of Indian Standards,
Manak Bhaban, 9 Bahadur Shah Zafar Marg,
New Delhi - 110002.

Subject - Issues raised by various SPAs during 32nd meeting of Standing Advisory Committee (SAC) under JPM Act, 1987 - regarding

Sir,

This has reference to the 32nd meeting of Standing Advisory Committee under JPM Act, 1,987, held on 30.07.2024 wherein a few State Procurement Agencies (SPAs) raised the issues relating to quality of jute bags supplied by various jute mills for the public distribution system, which are being inspected by the pre-dispatch level by the empanelled inspection agencies following the existing BIS standard i.e. IS:16186-201 4 (as amended).

Apropos to the discussion held in the said meeting, it has been urged by the various stakeholders that the current inspection protocol including sampling and criteria for acceptance as prescribed in the IS: 16186-2014 (as amended), may be further reviewed so that the chances of acceptance of inferior jute bags may be prevented to the extent possible and the interest of the consumers is protected accordingly.

Secondly, while carrying out consignees' end inspection for settlement of complaints made by the various State Procurement Agencies, the defective/ inferior/ disputed bags in *loose un-baled* conditions could be taken up due to non-availability of specific guidelines in the relevant BIS specification, in this regard. Accordingly, it is also urged that a suitable protocol prescribing guidelines for inspection of such *loose jute bags* may also be incorporated in the existing BIS standard. Accordingly, it is proposed that the above issues may be taken up in the

next meeting of Sectional Committee of BIS (TXD-03) for deliberation and consideration by all the stakeholders.

This is for your information and necessary action and issues with the approval of Jute Commissioner.

ANNEX 11
(Item 6.3)

COMMENTS ON PUBLISHED STANDARDS

Comments on IS 3344 : 2023, Textiles — D.W. Tarpaulin Jute Bags for Packing (Mint) Coins — Specification (First Revision)

NAME OF THE COMMENTATOR/ORGANIZATION:
SATYAJIT CHAKRABORTY – ESKAPS (INDIA) PRIVATE LIMITED – KOLKATA

Clause/Paragraph of ToR	Comments	Specific Proposal (Draft clause to be add/amended)	Remarks	Technical References and justification on which (2), (3), (4) are based
(1)	(2)	(3)	(4)	(5)
1. In IS 3344 - 2023 Clause no 3.2	Only metal hoops mentioned	Plastic hoops also should be incorporated.	-	Reference specification IS 2873-1991 amend. 2 and IS 16186 -2014
2. In IS 3344 - 2023 Clause no 3.9	Joined bag mentioned in cl 3.9, but cl 4.1 decleaming that joined bags being not permitted.	Cl. 3.9 should be change as per cl 4.1	-	Matter is contradictory.
3. In IS 3344 - 2023 Clause no 4.2	Safety stitch required, but not mentioned.	Safety stitch should be mentioned.	-	Reference specification IS 16186, 18161, 1943.
4.In IS 3344 -2023	Weaving and stitching defects were not mentioned.	Weaving and stitching defects should be properly mentioned.	-	Unserviceable bags are defective and so the type of defects are to be mentioned to identify the serviceable bag.
5. In IS 3344 - 2023	No. of bags in bale and no. of bundles in bale were not mentioned.	No. of bags in bale and bundle should be mentioned.	-	Reference specification IS 9113-2012 and IS 16186 -2014

6. In IS 3344 - 2023 **Annex. A**	Annex. A , (A 3.2 point no. vi) During selection for "Weight per Bag" have to 10% of bags per bale which is very high quantity	It should be 7(seven) /16(sixteen) bags like other Bag specifications.	-	Reference specification IS 9113-2012 and IS 16186 -2014

Smt Soumita Chowdhury, Indian Jute Industries Research Association, Kolkata

1. Weight of coins or capacity of this bag is not mentioned here. The safely coin carrying capacity should be mentioned here.

2. The bag size may vary according to the type of coin also. For example as volume and weight of 100 1 rupee coin will differ from that of Rs. 10 coin.

ANNEX 12
(Item 6.4)

COMMENTS ON PUBLISHED STANDARDS

Comments on IS 2873 : 1991, Textiles – Packaging of jute products in bales – Specification (second revision)

a) Shri Bhudipta Saha, Indian Jute Mills Association, Kolkata

Kindly find attached herewith the amended copy of IS 2873 - Packing of Jute products in bales and the test report from IJIRA.

This amendment is necessary as the jute industry is moving towards shuttle-less looms replacing the age-old shuttle looms. The existing specification mentioned in IS 2873 is based on pack sheets manufactured in Shuttle looms. As the population of shuttle looms in the jute industry is reducing (some mills do not have shuttle looms) revision in the said IS has become the need of the day.

Therefore, I would request you to kindly publish the revised standard after doing necessary modifications (if sought for) for wide circulation.

Test Report

To
Mr. Bhudipta Saha
Technical Head
Indian Jute Mills Association,
Royal Exchange,
6, Netaji Subhas Road,
Kolkata: - 700001

Date: 07.06.2024

Your Reference No: - Tag dated 06.06.2024.
Report No.: - TT/019/24 – 25

Type of Sample: - Pack Sheet 30" – 523g/m^2.
Sample Received From: - Glostre Limited.
Date of Receipt: - 06.06.2024
Date of Test: - 07.06.2024

Test Results

Sl No.	Test Parameters	Values	Standard Followed
1	Types of Weave	Single warp & double weft Plain weave	--
2	Width (cm)	79.0	

3	MR (%)	14.5		IS 2873 : 1991
4	GSM at 20% MR (Avg.) Range	521.24 (508.27 – 547.93)		
5	Avg. Ends/dm Range	33 (33 – 34)		
6	Avg. Picks/dm Range	40 (38-40)		
7	Avg. Tensile Strength (10×20) cm.	(kgf)	(N)	
	1) Warp Way (Avg). Range	139.67 (115.00-164.00)	1370.16 (1128.15-1608.84)	
	2) Weft Way (Avg). Range	260.33 (216.00-279.00)	2553.84 (2118.96-2736.99)	

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5. Test reports shall not be reproduced in full without written approval of the institute.
6. All tensile tests are carried out at 65 ± 2% RH and 27 ± 2° C temperature.

(Soumita Chowdhury)
Technical Manager
Physical Testing Cell

FOREWORD

This Indian Standard (*Second 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.

Uniformity in the make-up of package and proper packaging with suitable packing material provides a fillip in the marketing of goods. This standard gives such details of packing of jute products which ensures adequate protection to the contents of the bales against any possible damage due to handling during transit.

This standard was first published in 1966 and revised in 1969. The second revision has been undertaken to effect certain modifications in the procedure as well as in the packing material

prescribed for making up of packages and covering bales respectively. Tables for length of cloth (hessian/sacking) per bale and for number of bags per bale have been omitted, since with the introduction of container service, the total length and number of bags per bale is undergoing changes. The existing table for number of baling strips has also been modified and the number of strips to be used for bale length less than 50 cm has been included.

This standard contains clauses which call for agreement between the buyer and the seller or which permit the buyer to use his option to suit his requirements. The relevant clauses are **4.1**, **5.2.1**, **5.2.2**, Table 1, **7.1** and **7.1.1**.

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.

IS 2873

Indian Standard

TEXTILE — PACKAGING OF JUTE PRODUCTS IN BALES — SPECIFICATION

(*Third Revision*)

1 SCOPE

This standard prescribes the requirements of packaging of conventional types of jute fabrics and jute bags in the form of bales.

2 REFERENCES

The Indian Standards listed at Annex A are necessary adjuncts to this standard.

3 TERMINOLOGY

3.0 For the purpose of this standard, the following definitions shall apply.

3.1 Bale

A rectangular or square pressed rigid package, containing one type of jute product, covered with bale covering with outer layer stitches and bound by metal hoops, in conformity with this standard.

3.2 Dead Weight Volume (Bale)

The volume calculated from contract mass of a bale on the basis of 1.393 5 m^3 to a tonne.

3.3 Packing Allowances

The percentage allowance by which the volume of a bale may exceed the dead weight volume.

3.4 Bundle

A package without covering or wrapping, consisting of a number of bags suitably tied or stitched together.

3.5 Cut (or Full Cut)

A length of continuously woven jute fabric measuring (a) 82 m or more in the case of hessian, and (b) 73 m or more in the case of sacking.

3.6 Medium Cut

A length of continuously woven jute fabric measuring (a) 37 m or more, but less than 82 m in the case of hessian; and (b) 37 m or more, but less than 73 m in the case of sacking.

3.7 Short Piece
A length of continuously woven jute fabric measuring (a) 18 m or more, but less than 37 m in the case of hessian; and (b) 14 m or more, but less than 37 m in the case of sacking.

3.8 Crisped

A term used in describing an aspect of the make-up of jute fabric; it describes a jute fabric folded lengthwise at the middle from selvedge to selvedge.

3.9 Lapped

A term used in describing an aspect of the make-up of jute fabric; it describes a jute fabric continuously folded backwards and forwards in predetermined length.

3.10 Long End

A term used to refer to the bottom layer of cloth of a lapped cut which is drawn out and covers about three-fourths to full length of the top lap (*see* Fig. 1).

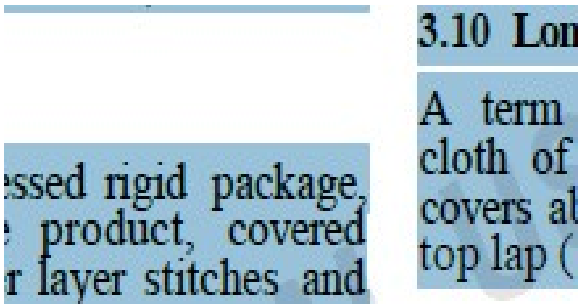


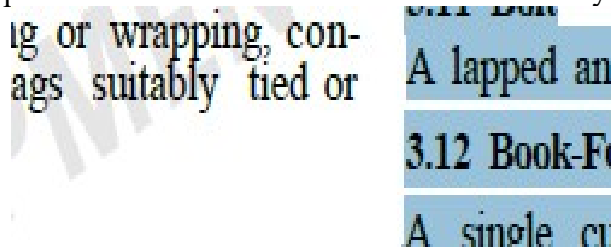
Fig. 1 Lapped Cut and Long End

3.11 Bolt

A lapped and folded cut.

3.12 Book-Fold Bolt

A single cut which is lapped and folded into the book-fold illustrated by the heavy line in Fig. 2.



L = Length of the lap

Fig. 2 Book-Fold

3.13 Concertina Packing

Cuts folded to shorter fold lengths ranging between 46 cm and 91 cm or as agreed to between the buyer and the Seller (*see* Fig. 3).

Fig. 3 Concertina Packing

3.14 Joined Bag

A bag fabricated out of two pieces of same jute cloth (sacking or hessian).

3.15 Rolls

Cuts (crisp or plain) made into rolls instead of bolts; these rolls are then packed in the form of bales. Fabric length in the rolls may be as agreed to between the buyer and the seller.

4 PACKING MATERIAL

4.1 Bale Covering

The fabric used for covering bales shall be one single piece, new, double warp & single weft woven in Shuttle loom or Joint / Over-lapped, new, single warp and double weft woven in Shuttle-less (S4) loom. The cloth must be sacking of not less than the particulars given below. However, fabric of other construction conforming to relevant Indian Standard may be used, if agreed to between the buyer and the seller.

Loom Type	*Mass*	*Ends per dm (Porter)*	*Picks per dm (Shots per in)*	*Breaking Strength (10 cm × 20 cm Strip)*	
				Warp way	Weft way
	(1)	(2)	(3)	(4)	(5)
Shuttle	523 g/m^2	43 (5) (4.5) in case of twill	28 (7)	1097 N (112 kgf)	1333 N (136 kgf (130 kgf)
Shuttle-less (S4)	523 g/m^2	33 (+2/-2)	40 (+2/-2)	1128 N (115 kgf)	2118 N (216 kgf)
Method of Test	IS 1964	IS 1963		IS 1969	

4.2 Pack Sheet

If the fabric used for bale covering is other than specified in **4.1**, the pack-sheet fabric shall be of construction as specified in **4.1**.

4.3 Jute Twine

The total strands of jute twine used for sewing shall have a breaking load of not less than 176 N irrespective of the number of plies (*see* IS 1670).

4.4 Baling Strips (or Hoops)

Baling strips shall be new and of 'soft' grade conforming to the applicable requirements of IS 1029 and shall be 1.63 mm thick, 25 mm wide and lacquered or painted black.

NOTE — This does not preclude the use of improved binding materials as agreed to between the buyer and the seller.

5 MAKE-UP OF PACKAGE

5.1 Fabric

The cuts shall be made up and packed in bales in the following manner.

5.1.1 The ends of each cut shall be laid flat and trimmed square across the full width of the cloth.

5.1.2 A cut shall be crisped only when agreed to between the buyer and the seller.

5.1.3 Unless otherwise agreed to between the buyer and the seller, for hessian the lapped length of cuts shall not be less than 203 cm or more than 230 cm and for sacking not less than 183 cm or more than 230 cm. This shall be applicable only in case of book-fold bolts or rolls. Fabric length in the rolls may be as agreed to between the buyer and the seller.

5.1.4 The long end of a lapped cut shall be drawn out over the full length of the top lap. The cut shall then be folded into a book-fold bolt (*see* 3.12). The cut may also be folded into two, three or four folds if agreed to between the buyer and the seller. The ends of the cloth in the folded cut shall remain flat and free from wrinkles.

5.1.4.1 Separate cuts shall not be basted, tied or sewed together in any way.

5.1.4.2 Each cut shall be so packed that it appears as a single separate length of cloth. No cut, however short, (within the permissible limit) shall be packed together.

5.1.5 After folding, the bolt shall be tied with jute yarn at two places near the two selvedge ends.

NOTE — Bolts or folded cuts shall not be sewn in any manner or tied from end to end.

5.1.6 The length of cloth in metres in each cut shall be stencilled at the end of the cut parallel to and about 25 mm from one of the selvedges, with the numerals followed by the letter 'mm' both between 25 mm and 50 mm in height. This shall be visible on the tied bolt.

5.1.7 No bale shall contain more than (a) two medium cuts and one short piece, or (b) three medium cuts. This shall not be applicable in case of bales containing crisped and rolled cuts.

5.1.8 All the bales of one lot purporting to be of one specified type, width and quality shall contain the length of cloth as agreed to between the buyer and the seller.

5.1.9 The selvedge edges of the bolts shall be aligned vertically with each other as also their folded edges before being pressed into a bale.

5.2 Bags

The bags shall be made up and packed in bales in the following manner.

5.2.1 All the bales of one lot of jute bags purporting to be of specified dimensions and quality shall contain one definite number of bags as agreed to between the buyer and the seller.

5.2.2 The bags shall be made up into bundles of 25 bags each or as agreed to between the buyer and the seller.

NOTE — Bags may be folded and placed between the bundles to maintain the shape of the bale.

5.2.3 A bale may contain joined bags subject to a maximum of 4 percent of the total number of bags in a bale, with not more than one such bag in a bundle of 25 bags. Preferably the joined bags may be placed on the top of bundles.

5.2.4 Bags shall be laid either flat or folded one over the other. Unless otherwise agreed to between the buyer and the seller, the top and bottom bags in each bundle shall be tied together in at least four places, one in each side with jute yarn.

5.2.5 In the case of bales containing woolpacks, no bundle tie strings shall be left inside the bales.

6 REQUIREMENTS OF PACKAGE

6.1 The top and bottom layers of goods packed in a bale shall be covered with a piece of pack sheet (*see* **4.2**).

6.2 The bales shall be completely covered on all sides with at least one layer of bale covering (*see* **4.1**).

6.3 The loose ends of the bale covering shall be sewn with jute twine (*see* **4.3**) with about 8 cm between stitches on the sides and about 12 cm between stitches at the top and bottom of the bale.

6.4 The average moisture regain percentage in a packed bale shall not exceed:

a) 17 percent in the case of hessian and bags made thereof; and

b) 22 percent in the case of sacking and bags (or packs) made thereof.

6.4.1 The bales shall not include cuts or bags which are too moist as this causes mildew, yellow blotches or spot, loss in tensile strength and gives the cloth a musty odour; a condition known as 'wet pack'.

6.4.2 Bales shall not include cuts or bags whose warp dressing has not been properly dried as this causes laps to stick together; a condition known as 'solid pack'.

6.5 The bale shall be securely bound with steel strips (*see* **4.4**) running at right angles to the length of the bale. The outside strips shall be approximately 10 to 15 cm from each end of the bale and the intermediate strips shall be so placed as to be approximately equidistant from one another and from the strips of the extreme ends. The joint of each strip shall be firm and wrapped with a piece of new jute cloth.

6.5.1 The number of strips on a bale shall not be less than that specified in Table 1.

Table 1 Number of Baling Strips

Bale Length	No. of Strips
Up to 71 cm	2
Over 71 cm and up to 90 cm	3
Over 90 cm and up to 110 cm	4
Over 110 cm and up to 145 cm	5
Over 145 cm and up to 195 cm	6
Over 195 cm and up to 245 cm	7

NOTES

1 Bale length is based on the nominal width of the fabric, and on the nominal dimensions of the bags according to whether the bags are folded or flat.

2 In case of internal transit the number of strips to be used for bale length up to 50 cm shall be in accordance with the above table or as agreed to between the buyer and the seller.

6.6 Bales shall be compressed to a density of dead weight volume. Excessive pressure which may cause damage to the contents, such as press or hoop cutting or crushed selvedges, shall be avoided.

6.7 The cubic measurement (in cubic metres) of a lot of bales shall not exceed the dead weight volume of the lot with the packing allowance as agreed to between the buyer and the seller. The measurements should be to four decimal places and the final result may be recorded to three decimal places.

6.7.1 The method of calculation of dead weight volume of the lot with the packing allowance is as follow:

$$\text{Volume of bales in cubic metres} = \frac{W \times N}{1000} \times \frac{(100+P)}{100} \times V$$

where

W = Contract mass of a bale in kilograms,
N = Number of bales in the lot,
P = Packing allowance in percent, and
V = Dead weight volume one tonne in cubic metres (*see* **3.2**).

7 MARKING

7.1 Unless otherwise agreed to between the buyer and the seller, the following information shall be stencilled on the bales with blue or black indelible ink, with letters and figures not less than 5 cm and more than 7.5 cm in height, except for bale numbers which shall be not less than 7.5 cm in height:

a) Identification of source of manufacture;

b) Description of goods, such as:

i) Hessian 102 cm, 305 g/m^2,

ii) Cornsack 104 cm × 58.5 cm, 1 020 g,

c) Length in metres of fabric or number of bags;

d) Contract weight in kilograms;

e) Bale number; and

f) Any other particulars required by the buyer or by law or regulations in force.

7.1.1 Bales shall be marked on two sides one set of marks on the round side and the other set of marks on the end-on side (*see* Fig. 4), unless otherwise agreed to between the buyer and the seller. All the particulars shall be expressed in metric units.

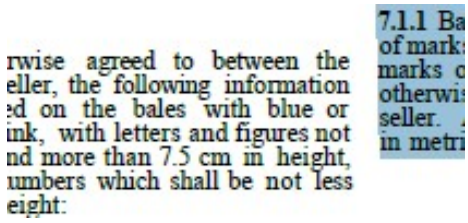


Fig. 4 Sketch of A Typical Bale

7.1.2 The bale may also be marked with the Standard Mark.

ANNEX A
(*Clause* 2)

LIST OF REFERRED INDIAN STANDARDS

IS No.	***Title***
1029: 1970	Hot rolled steel strips (bailing) (*first revision*)
1670: 1970	Method for determination of breaking load, elongation at break and tenacity of yarns (*first revision*)
1963: 1981	Methods for determination of threads per unit length in woven fabrics (*second revision*)
1964: 1970	Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*)
1969: 1985	Methods for determination of breaking load and elongation of woven textile fabrics (*second revision*)

ANNEX 13
(Item 6.4)

R&D PROJECT
[Jute and Jute Products Sectional Committee TXD 03 under Textiles Department of BIS

Project Title:
To study the packaging practices of jute products for internal and exports trades (Project Code- TXD 0172)

1. Introduction:

IS 2873 standard (Title -) was first introduced by BIS in 1966 after draft finalized by Jute and Jute Sectional Committee (TXD- 3). The standard was latest reaffirmed on 2021.
It is decided by the TXD -03 that the standard needed to be rechecked thoroughly as it is an old standard and the quality of present available jute bale packing materials may be modified as per availability of materials as well as requirement of Jute Industry.
The all technical matters and specifications given in the standard IS 2873 are Re- Looked by this project which will ensure efficacy of jute bale packaging system as well as will increase the customer satisfaction.

2. Objectives:

a. To collect the technical data and scientific evidence for existing packaging practices of jute and jute products for internal and export trades from primary and secondary sources and to suggest a suitable low cost alternative.
b. To revise the present IS standard for jute and jute products packaging in line with present requirements.

3. Literature Review:

3.1 Present standard:

A standard (IS 2873) was first published by BIS on 1966 and revised on 1969 for maintaining uniformity in the make- up of package and proper packaging with suitable packaging materials. The different aspects required for protection of bales were ensured by the BIS TXD- 03 committee during finalization of the standard to protect the bales from any damages. Last reaffirmation of the said standard was done in 2021.

It is observed in the standard IS 2873: 1990 (Re- 2021)[(1)], that the Pack Sheet Specification to pack the jute bales is given below:

	Mass	Ends/ dm	Picks/ dm	Breaking Strength (10 X 20 cm

				Strip)	
				Warp way	Weft way
Unit	g/m^2	(threads/dm)		N (kg)	
For Plain weave	523	43	8 (Wrongly mentioned instead of 28)	1097 N (112 kgf)	1333 N (136 kgf)
For Twill weave	523	4.5 per inch (Wrongly mentioned instead of 28)	28 (5 per inch)	---	130 kgf
Method of Test	IS 1964:1970	IS 1963:1981		IS 1969: 1985	

For baling Strips, IS 1029: 1970[(2)] standard is mentioned within standard IS 2873, which is a standard for **Hot rolled** steel strips (baling). Jute industry is presently using cold rolled baling hoops instead of hot roll baling hoops.

3.2 Modifications required in Pack Sheet used for jute bale packaging:

At present most of the jute mill are using S4 A rapier looms for jute fabric production. The specification given in standard IS 2873 can only be manufactured by conventional shuttle looms which are now in the process of elimination. A new pack sheet is essential to be designed which can be manufactured on S4 A rapier looms.

3.3 PET Strap standard suggested for jute bales:

IS 15559: 2004 (Re- 2020) has suggested use of polyester straps for packaging. As per conventional system PET straps of thickness 19.05 under table 1 (Sl. No. xi to xiv having minimum breaking strength 5970 to 10005 N respectively) were used by jute mills for bale packaging.

PET straps are very rarely used by jute industry now. The specification of PET strap occasionally used by jute mills which is not included in IS 15559 is given below:

1.40 mm thickness X 19.05 mm width with minimum breaking strength 1300 kg.

The above literature review implies that the cold roll bale hoop, PET straps and pack sheets used by jute industry are not included in the current IS standard IS 2873 : 1990 (Re- 2021). Hence a detailed study is required on this subject.

3.4 Present Baling Hoop used by Jute Mills:

a. Steel Strap :

Present baling hoop used in industry is cold roll type and follows the IS standard IS 5872: 1990: Re-2021[(3)] which is not mentioned in IS standard 2873. As no specification is stated for cold roll quality Baling hoop, the baling hoops used by jute mills are of four types (given by ITW Signode India) :

Product	Size	Width	Thickness	Breaking	Breaking	Elongation	Yield

		In mm	In mm	Load in kg (Min)	Load in kg (Max)		(m/kg)
Magnus	3425	19.05	0.64	1134	1451	Min 5 %	10.04
	3431	19.05	0.79	1383	1768	Min 6.5 %	8.5
Magnus Jute	3433	19.05	0.84	1600	1760	Min 6.5 %	8.0
	3435	19.05	0.89	1695	1865	Min 6.5 %	7.5

b. PET Strap (Amendment no. 3 December 2010 to IS 2873: 1991 for clause 4.4 rewrite as):

:

Width In mm	Thickness In mm	Breaking Load in N (Min)	Breaking Load in kg (Min)	Elongation	Kg/ mm^2
19.05	1.27	10005	1020	10-16 %	42
25.00	1.02	10510	1071.7		

3.5 Round Bale Hoop used for Cotton Bales:

A similar specification for cotton bale packaging is available as "2019 Specifications for cotton bale packaging materials"[(4)], approved by Joint Cotton Industry Bale Packaging Committee under NCC Bale Packaging committee. Here in point no 1.2.1 Cold rolled high tensile strength steel is recommended as an approved binding material. Types of cold roll steels used for cotton bale (170 kg ±10) packaging are as follows:

1. High tensile steel- 0.148 diameter and 200 ksi wire
2. High tensile steel- 0.140 diameter and 240 ksi wire
3. High tensile steel- 0.148 diameter and 240 ksi wire
4. High tensile steel- 0.155 diameter and 220 ksi wire
5. High tensile steel- 0.162 diameter and 200 ksi wire

Ksi is kilopounds per square inch

The manufacturer of bale hoop used for the cotton bale packaging provides "Certificate of Analysis (COA)" to the user before use which is a very good system to maintain the quality of material.

In the paper "Packing Jute Goods" by P.K. Choudhury (I.J.I.R.A.), Saumita Bandyopadhyay , published in The Indian Textile Journal, Vol. 109, No. 10, July 1999, p 28-34, it was concluded along with other points that tensile strength of 1" hot rolled hoops were found below the BIS specified value(56-63 kg/mm^2) and much lower than the strength of ¾ "cold rolled hoops (56-90 kg/mm^2) and bale moisture control reduces the chances of hoop break. All the jute mills are using cold roll bailing hoop now instead of hot rolled bailing hoop due to better quality and low cost which is still not included in the IS standard IS 2873

4. Methodology :

a. Collection of Data base:

Formats are prepared for manufacturer and user of steel strap, PET strap and pack sheet .

Different Steel Strap, Pet strap and pack sheet manufacturing companies are contacted for visit and sample collection.

IJIRA contacted the following Steel Strap Manufacturers:

a. Signode India Ltd.
b. Walzen Strips Pvt. Ltd.
c. Grip Strapping

Walzen Strips Pvt. Ltd. and Signode India Ltd agree for factory visit and sample collection.

IJIRA contacted the following PET Strap Manufacturers :

a. Interplex India

Interplex India agreed for IJIRA representative visit at their factory.

IJIRA also contacted Jute mills for collection of samples of pack sheet and straps used for bale packaging and to check the processing of pack sheet production. The following mills are visited for this purpose:

1. Birla Corporation Ltd. (Unit : Birla Jute Mills)
2. Kamarhatty Co. Ltd.
3. Shaktigarh Textile and Industries Ltd. (Unit : Hastings Mill)
4. Hoogly Infrastructure Pvt. Ltd. (Unit : Hukumchand Jute Mills)
5. Gloster Ltd. (yet to be visited)

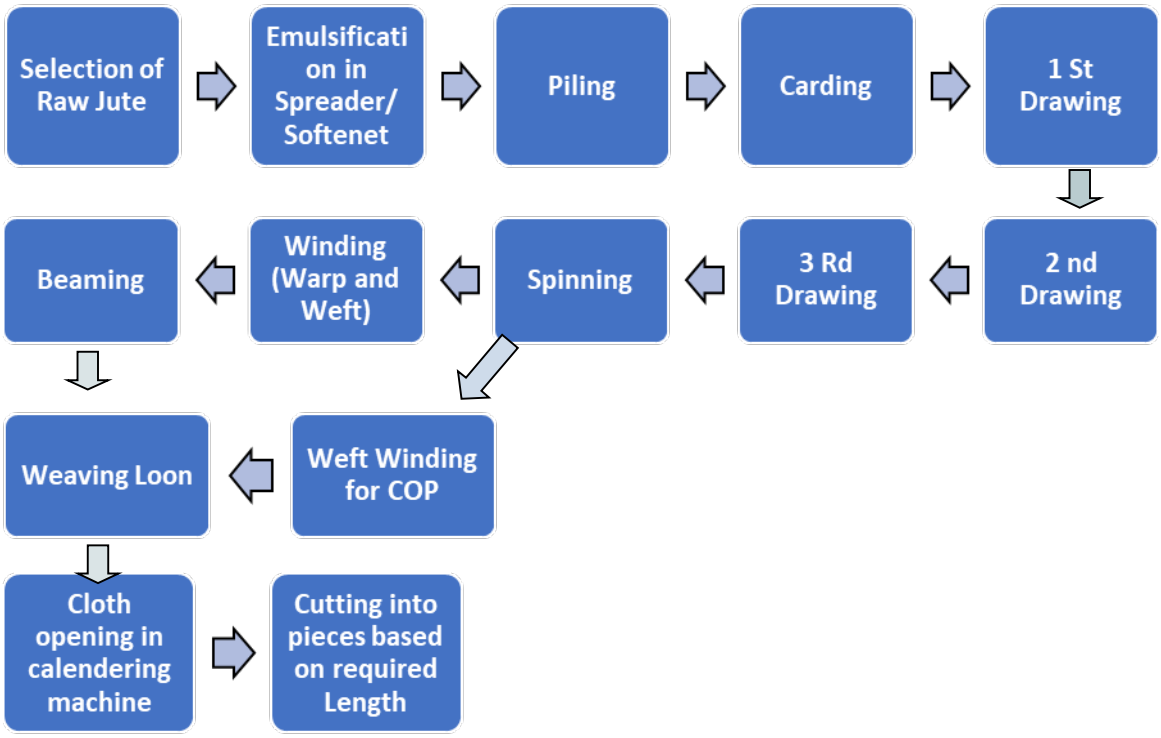
Formats are prepared circulated to the manufacturers and users of steel strap, PET strap and pack sheet .

For Pack sheet the following information are obtained:

- Raw materials used- Raw jute
- Raw Jute Testing facilities:
- Batch of Raw Jute :

Batch varies mill to mill. Different batch combination are given below:
1.**Warp**: Daisee 5- 85 % , Internal Wastage-1 5 % ; **Weft**:- Daisee 6- 80 %, cuttings 20 %
2. TD5 30 %, TD 6 35 %, TD 7 35 %
3. TD 5 and A50
4. **Warp**: TD 5 31.37 %, TD 6-33.33 %, J 6 – 34.9 %; **Weft**:- TD 6- 40 %, cuttings 25.04 %, Rope- 12 %, Thread wast e- 14.6 %, Sliver Waste- 4.8 %, Other 3.8 %

- Process Flow Chart for manufacturing Pack Sheet as follows:



- Process Control for Pack Sheet manufacturing involves control on :
  a. Raw jute bundle tenacity
  b. Application of Oil %
  c. Moisture regain % of yarn and fabric
  d. Twist per inch of jute yarn
  e. Yarn count and yarn CV %
  f. Fabric weight
  g. Tensile strength of yarn and fabric
- In house testing facilities :
  The jute mills have their own lab for testing of pack sheet fabric

- Instruments available in manufacturing industry lab:
  Most of the mills are using the following instruments for control on pack sheet quality:
  a. Fibre Bundle strength tester
  b. Weighing scale
  c. Moisture Meter
  d. Yarn Reeling Machine
  e. Yarn tensile strength testing machine
  f. Fabric tensile strength testing machine
  g. Soxhlet apparatus for oil % determination

h. Fabric Templates
i. Sliver testing reeling machine
j. Steel tape

- Mill lab hands:
  Most of the mills are tests the samples by trained hands.

- In-house test reports
  In-house test reports for pack sheet are avail at jute mills.

- Out Side lab test report
  Outside lab test report are not available in the mill

- Standard followed for the tests by the jute mill/ manufacturer
  Jute mills follow IS 2873 for test of pack sheet fabric.

- No. of samples tests for confirmation of pack sheet quality and conformity values
  Different no of samples are taken for confirmation of quality in jute mills. From 50 to 10 no. of samples are tested at a time and tested once per day to thrice per day.

- Marking system of pack sheet
  No separate identification mark is given to the pack sheets.

- Packaging and storing condition
  No special storage condition is followed by mills for storing of pack sheet.

- Energy Efficient Process adopted by Jute Mills:
  No energy efficient process are adopted by jute mills for pack sheet manufacturing process.

- Use of Renewable Energy in production of Pack sheet:
  At presently no renewable energy process are followed by jute mills for pack sheet manufacturing.

- Reuse and Recycle of waste materials and waste management:

  All waste materials of jute pack sheets are recycled and consumed in process.

ANNEX 14

(Item 7.1)

REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS

IS 271 : 2020, Textiles - Grading of White, Tossa and Daisee Uncut Indian Jute (Fifth Revision)

Record of discussion of the meeting held in Patsan Bhawan, Kolkata under Chairmanship of Dy. Jute Commissioner on 09.05.2024 at 11:00 AM for the Review of Indian Standard - Grading of White, Tossa and Daisee Uncut Indian Jute (IS 271: 2020)

A meeting was held under the Chairmanship of Dy. Jute Commissioner on 09.05.2024 in the O/o the Jute Commissioner, Patsan Bhawan, Kolkata for the **Review of Indian Standard - Grading of White, Tossa and Daisee Uncut Indian Jute (IS 271: 2020)** in the presence of the various Stakeholders (viz. Member Secretary CACP, NINFET (ICAR), Directorate of Jute Development / Min. of Agriculture & Farmers' Cooperation, IJIRA, JCI Ltd., IJMA, JBA, and representative(s) from jute farmers). The list of participants is enclosed in Annexure A.

1. At the outset, the Chairman welcomed the participants to the meeting. Asst. Director (JM), Office of Jute Commissioner, made a brief presentation on the background regarding the Indian Standard for grading of White, Tossa and Daisee Uncut Indian Jute, setting the context for the meeting. It was mentioned in the presentation that the matter has been taken up for discussion in the 40" - TXD 03 - Sectional Committee meeting of BIS held on 12.03.2024 at New Delhi, in which the members of the committee noted that there was not enough information / data to further revise / amend / review the existing raw jute specification, i.e. IS 271: 2020 which is in vogue. The members had opined in the said meeting for further stakeholders' consultation and finally, it was interalia decided that O/o Jute Commissioner shall hold necessary consultation with all the relevant stakeholders in this respect. It was noted in the presentation that in light of the aforesaid decision of the TXD 083 Sectional Committee, this meeting was being held.

2. Thereafter, all the stakeholders were requested to furnish their views in respect of IS 271 : 2020, as in vogue and the same is recorded below in seriatim:

3.1 **IJMA** : The representative(s) from IJMA who joined both physically and also through the virtual mode opined the following -

a) The representative from the IJMA pointed out that there is a distinct difference between TD 6 & TD7 (of the erstwhile IS 271: 2003), in respect of practical use as well as commercial value; and therefore, jute of such distinct qualities should not be classified within the same bracketed new grade of TD4, as in the new grading system of IS 271:2020.
b) Also, it was suggested that at present, in the absence of a suitable instrument-based grading facility, the Hand & Eye method of grading is more practical than the proposed instrument based grading system as mentioned in the IS 271: 2020.

c) It was mentioned that the proposals made by IJMA before the TXD 03 Sectional Committee, which have been placed as agenda in the 40™ meeting of the same (Annex 10 & Annex 11), **proposes to split the existing TD4 (as in IS 271:2020) to form two separate grades, and the same should be adopted by the BIS at the earliest.**

3.2 **FARMERS** - The representatives of Jute farmers from Azimganj, Dist - Murshidabad and Bongaon, Dist. North 24 Prg. informed the following:

a) The representative of the farmers' opined that new grading system (IS 271:2020) is better than old grading system (IS 271:2003), as the number of grades have been reduced from 8 to 5.
b) They pointed out that as awareness to the various technical parameters determining the grades are limited, more number of grades leads to apparent confusion and there is chance that the farmers' interests would be compromised. In this respect the farmers were of the view that lesser number of grades are better.
c) They also indicated that the new grading system is being followed by JCI during MSP operations, whereas the private jute traders are still using the old grading system of 8 grades, whereas in many jute growing areas, jute is classified and privately traded using only 3 grades, viz. Middle, Bottom, & B-Bottom.
d) The representative of the farmers pointed out that traders use self-estimation (using Hand & Eye techniques) for grading of Jute, as access to instruments and equipments are not available.

3.3 **JBA**- The representative from JBA Association submitting the following-

a) The representatives from JBA pointed out that jute is still classified and assorted in the local *haats* as per grade referred earlier by the farmers, i.e. Middle, Bottom, and B-Bottom.
b) Therefore, the BIS standard, which is theoretically in vogue (i.e. IS 271: 2020) has practically no relevance in the day-to-day trading of jute.
c) At the mill end, they informed that there is a wide array of commercial grades, which vary according to the origin of jute and sometimes are also determined by the ultimate purchasers, i.e. the millers.
d) In order to address the present crisis, the representatives from the JBA suggested three-point approach –
   (i) **Region wise grading should be specified by BIS** instead of a universal grade encompassing the entire gamut of jute, viz. Assam, North Bengal, Semi North Bengal, Bihar & South Bengal),
   (ii) Rigorous campaigns need to be conducted at all levels of jute marketing cycle, to generate awareness on the technical and economic aspects of jute grading, and
   (iii) An Arbitration Panel should be set up immediately involving relevant stakeholders for resolution of commercial disputes on jute grading, and
   (iv) Jute price should be fixed as per the quality of its use.

3.4 **JCI**- The representative from JCI submitting the following-

a) In the regular jute marketing cycle, the farmer sell jute in an un-assorted manner to the local balers, who in turn segregate the jute into various marketable grades and after change of hands across 2-3 traders, the jute finally reaches to the ultimate consumers, i.e. the mills.
b) The representative from JCI pointed out that jute has a unique morphological structure as contrast to other natural fibres; and accordingly, instrument-based grading will always indicate inherent variations, even within the same jute reed as well as within jute of same grade classified in *hand & eye method*.
c) They also pointed out that the characteristics of jute changes region wise and referred to the higher commercial value of jute from North-Bengal, as compared to south Bengal jute.
d) The representative from JCI opined that merely by splitting the TD4 (as in IS 271:2020) into two separate grades shall not accrue any desired result, and **preferred that no changes are required at this stage in the present system of grading i.e. IS 271:2020.**

3.5 **DJD (in virtual mode)** - The representative from DJD submitting the Following-

a. The representative from DJD pointed out that the existing 5 grading system is better, as a greater number of grades may create confusion among the farmers.
b. It was discussed that since grading of jute is by and large through hand & eye method, an element of subjectivity shall always remain, until instrument-based grading is evolved to such level that it can be used commercially across all levels of the trade.
c. **It was opined that till such time; the existing grade may continue as it is beneficial for the farmers**.

3.6 **NINFET**- The representative from NINFET submitting the following-

a) The representative from NINFET pointed out that they have tested over 1000 jute samples for grading in the recent past, and it has been found that around 70% of the jute was either TD3 & TD4 (as in Is 271-2020).
b) The representative from NINFET pointed that they are in the process of developing mobile based jute grading system, which shall take around 6 more months for commercialization, in which state of the art technology is being used to determine the grade of jute.
c) Till the mobile based grading facility is fully commercialized, they stressed upon the use of instrument-based grading. Around 60 sets of instruments developed by NINFET have already been distributed to various DPCs of JCI, as well as to different private commercial units' viz. M/s Gloster Ltd., M/s Jayshri Textiles, Rishra etc. are being actively used by them.

d) It was opined that till such time the mobile based integrated instrument-based grading is developed, **the existing grade (i.e. IS 271:2020) may continue as it is beneficial for the farmers**.

3.7 **IJIRA** - The representative from IJIRA submitting the following-

a) The representative from IJIRA pointed that the **old system of grading was better (IS 271:2003)**, and were in **favour of the proposed splitting of TD4 (IS 271: 2020) into two separate categories** depending upon usage and commercial value.

3.8 **CACP (in virtual mode)**- Member Secretary, CACP conveyed the following -

a) Member Secretary, CACP mentioned that in view of the discussions held in this meeting, it appears that many of the stakeholders are in alignment with the existing grading system, in which the number of grades has been reduced from 8 to 5.
b) Member Secretary, CACP also noted that the farmers have also echoed the same views in their submissions before the panel.
c) It was also noted that there are other major stakeholders who prefer to revise / amend the existing standard for jute grading.
d) Member Secretary, CACP urged this panel to also review the system of jute grading prevalent in Bangladesh for the sake of reference.
e) Finally it was opined that before drawing a conclusion in this respect, it is necessary to **collect sufficient data / information, to facilitate a considered view in the matter.**
f) In view of the foregoing, it was suggested that before coming to a conclusion in this respect, **more testing and data collection is required.**

4. In view of the foregoing, Dy. Jute Commissioner suggested that IJMA may carry out sufficient tests through NINFET (ICAR) or IJIRA to justify that there is wide variance in the quality of jute classified under TD4 in IS 271:2020, and submit a report for further consideration.

5. The meeting concluded with thanks to and from the chair.

Annexure I

List of Participants

1. Sh. Neeraj Kulhari, Dy. Jute Commissioner, O/o JC, Kolkata in Chair
2. Sh. T.K Mondal, Consultant (Marketing), O/o JC, Kolkata
3. Sh. Soumyadipta Datta, Asst. Director (JM), O/o JC, Kolkata
4. Sh. Amir Akhtar, Asst. Director (Cost), O/o JC, Kolkata
5. Sh. Anindya Majumder, JCI, Kolkata
6. Sh. B. N. Bansali, JCI, Kolkata
7. Dr. D.P. Ray, Scientist, NINFET
8. Dr.Nageshkumar T, Scientist, NINFET

9. Sh. Om Soni, JBA, Kolkata
10. Sh. Jai Kumar Bagra, JBA, Kolkata
11. Sh. Budipta Saha, Technical Head, [JMA
12. Sh. Sachin Mondal, Jute Farmer, Azimganj
13. Sh. Abbas Mondal, , Jute Farmer, Bongaon
14. Sh. Gopal Mukhopadhay, IJIRA
15. Sh. Prosenjit Das, Tech. Associate, O/o JC, Kolkata

Present in virtual mode:

1. Sh. Anupam Mitra, Member Secretary, CACP (in virtual mode)
2. Sh. Rishabh Kajaria, Dy. Chairman, IJMA (in virtual mode)
3. Sh. Jhintu Das, Dy. Director, DJD (in virtual mode)

ANNEX 15
(Item 7.2)

REVIEW OF PUBLISHED STANDARDS/PRE-2000 STANDARDS

Minutes of the meeting of panel constituted by Jute & Jute Products Sectional Committee of BIS (TXD-03) to review Pre-2000 standards

Date: 08.07.2024, Time: 3:00 PM onwads
Venue: Patsan Bhawan, Kolkata

List of attendees is given at Annexure-I.

1. The Meeting of the Panel constituted by the Jute & Jute Products Sectional Committee of BIS (i.e. TXD 03) to review Pre-2000 standards was held on 08.07.2024 from 03:00 PM onwards in hybrid mode at Patsan Bhawan, Kolkata. The said panel, comprising of Sh. Dharmbeer, Member Secretary, TXD 03, Dr. M. Datta, National Jute Board, Kolkata, Sh. B. Saha, TDD – IJMA, Ms. S. Chowdhury, Scientist, IJIRA, Sh. Tanmoy Singha, Gloster Limited, Kolkata, Shri B. Sen, SGS India Pvt. Ltd., Kolkata and Sh. S. Datta – Assistant Director, O/o Jute Commissioner, Kolkata has been constituted by the TXD 03 Sectional Committee of BIS in its 40th meeting held on 12.03.2024. All the members of the panel, as mentioned in the foregoing attended the meeting on 08.07.2024.

2. At the outset, Sh. S. Datta – Convenor of this panel welcomed all the panel members and briefed them about the background for holding this meeting. It was mentioned that this panel has been entrusted with the task to review following pre-2000 standards –

Sl. No.	IS No.	Title
1	IS 3790 : 1991	Textiles – Hessian bags – Specification (second revision)
2	IS 4744 : 1991	Textiles – Packaging of jute products in rolls – Specification (first revision)
3	IS 4900 (Part 1 to 3) : 1984	Specification for jute carpet backing fabric (first revision)

Subsequently, the convenor asked the other members of the panel to offer their view/ opinion on the aforementioned BIS specifications. The point-wise views / suggestions of the members of the panel have been recorded and placed below in seriatim.

3. <u>IS 3790:1991 - Textiles – Hessian bags – Specification (second revision)</u>:

I. IJMA: -

a) The individual standards viz. IS: 2818 (Part 1):1971 and IS: 2818 (Part2):1971 should be subsumed into a single comprehensive standard - IS 2818:2015.

b) The following revision have been suggested under Point 4.4 of the existing standard –

Replace -

"In the case of Hemmed bags the raw edges at the mouth of the bag shall be turned over first to a depth of about 1.5 cm and then to a depth of about 2.5 cm"
By -
"In the case of Hemmed bags the raw edges at the mouth of the bag shall be turned two times whose total depth should be around 4.0 cm."

c) Point B 1, 2 in Annexure-B of the standard may be modified as per AQL 4.0

II.**SGS:** -

a) Criteria for checking 'Visual Defects' is not provided in the standard, which may be incorporated.

b) Accordingly, the members requested SGS to propose the same and a draft may be circulated to the members for review.

III. **BIS:** - Editorial changes as proposed above, may be incorporated in the standard.

4. <u>IS 4744:1991 - Textiles – Packaging of jute products in rolls – Specification (first revision)</u>:

I. IJMA: -

a) Point 3.5 : Core -

i. Minimum Diameter required for packing jute cloth rolls from 500 – 3000 meters may be mentioned

ii. IJMA to collect data from the stakeholders

b) Point iii) of Table – 1 of the standard –
Sewing - Jute twine of 310 Tex (9 lbs) x 3 ply to be mentioned

c) Point 6.1.1 of the standard -
Replace –
'CORDBOARD'
by –
'CARDBOARD'.

II. SGS: -

a) As mentioned by IJMA, 'Count' and 'Ply' of Jute Twine is required to be specified in the specification.

III. BIS: -

a) As proposed by IJMA, necessary data will be collected from jute mills by IJMA and the same shall be shared with the panel members.

b) Editorial changes as proposed above, may be incorporated.

5. <u>IS 4900 (Part 1 to 3):1984 - Specification for jute carpet backing fabric (first revision):</u>

I. IJMA: -

a) To subsume all the 3 parts of the standard into a single BIS standard

b) A table containing fabric defects which are acceptable & not acceptable to be included and a draft on the same may be prepared by SGS.

II. SGS: -

a) Classification of visual defects not mentioned in the standard, which may be incorporated.

b) Tests for conformity to be included, and a draft shall be prepared by SGS and circulated to all the members of the panel for review.

III. IJIRA: -

a) Ideally Yarn used for carpet backing cloth should be regular / even / Slub-free. However, separate IS specification may be proposed for Carpet backing yarn.

7. With no other matter(s) to discuss, the convener thanked all the members for attending the meeting.

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Annexure-I
List of Participant(s):

Sl. No.	Name	Organization
1.	Sh. Dharmveer	Member Secretary, TXD 03, BIS (Attended virtually)
2.	Dr. M. Datta, Jt. Director (T)	National Jute Board, Kolkata
3.	Sh. S. Datta – Assistant Director (JM)	O/o Jute Commissioner
4.	Sh. B. Saha, TDD	IJMA
5.	Ms. S. Chowdhury, Scientist	IJIRA
6.	Shri Tanmoy Singha	Gloster Limited, Kolkata,
7.	Shri B. Sen	SGS India Pvt. Ltd., Kolkata
8.	Sh. C. Dey, Technical Associate	O/o Jute Commissioner
9.	Sh. P. Das, Young Professional	National Jute Board, Kolkata
10.	Sh. S. Dutta, Young Professional	National Jute Board, Kolkata