

भारतीय मानक ब्यूरो
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भारतीय मानक मसौदा

वस्त्रादि – कपास के होजरी धागे एवम सामान की पैकेजिंग – रीति संहिता

(IS 3086 का पहला पुनरीक्षण)

(Draft Indian Standard)

**TEXTILES — SEAWORTHY PACKAGING OF COTTON HOSIERY
YARN AND GOODS — CODE OF PRACTICE**

(First Revision of IS 3086)

ICS 59.060.10, 59.080.20

Hosiery Sectional Committee,
TXD 10

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FOREWORD

(Formal clauses will be added later)

This standard was first published in 1965. This revision has been made in the light of experience gained since its publication and to incorporate the following major changes:

- a) Title of the standard has been modified; and
- b) BIS Certification marking clause has been updated.

Packaging plays a very important part in preventing damage in handling and in the safe transport of goods, their storage and marketing. Proper packaging with quality packing materials protects the goods from the hazards of transit, provides for ease of handling and preserves the contents from infestation, contamination and other deterioration. This code gives details of seaworthy

packaging of cotton hosiery yarn and goods which would ensure adequate protection to the contents of the packages which are to be shipped overseas.

Hosiery goods, especially of superior quality are often sent through post parcel, particularly when early delivery of goods are required. This code gives the details of packaging hosiery goods in such cases also.

The goods intended to be sent through post parcel are packed in cardboard boxes; the size and weight of such cardboard box should be in conformity with the international postal rules and regulations.

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 code prescribes the method of packaging of cotton hosiery yarn and goods for overseas markets.

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 these standards.

3 PACKING PROCEDURE

3.1 Hosiery Yarn (Hanks) in Bales

3.1.1 Make hanks of yarn into bundles of 5 kg or 2.5 kg. Tie each bundle securely with cotton twine at least at three places at right angles to the length of the hanks. Wrap each bundle in kraft paper. Place pieces of cardboard of suitable sizes, one each on top and bottom of the bundle so as to form a rectangular bundle and tie it securely with cotton or jute twine of suitable quality.

NOTE — To facilitate identification, each bundle may be marked with the name of the material, name and trade-mark of the manufacturer, count of yarn and nominal weight of the bundle

3.1.2 Place a sufficient number of bundles (*see 3.1.3*) prepared as in 3.1.1 on the table of a baling press over layers of packing materials listed in Table 1, arranging the layers in such a manner that, when the bale is finally made up, the material listed first forms the innermost layer and the material listed last forms the outermost layer. Place similar layers of packing materials over the top of the arranged bundles. The packing materials shall be in sound, clean and dry condition and shall be of sufficient size to cover the bundles with adequate overlaps on all sides.

Table 1 List of Packing Materials
(*Clause 3.1.2*)

Sl No.	Layer	Material	Conforming to
(1)	(2)	(3)	(4)
i)	Single	Kraft paper or Polyethylene film, or Waterproof paper	Grade 2 of IS 1397 Grade 213 of IS 2508 Type 2 of IS 1398
ii)	Single	Light weight hessian or Matting (or CHATTAI)	Type II (229 g/m ²) of IS 2818 —
iii)	Single	Waterproof paper	Type 2 of IS 1398
iv)	Single Double	Hessian-lined kraft paper or Waterproof paper	Type 3 of IS 1398 Type 2 of IS 1398
v)	Single	Heavy cee cloth	B-1
NOTE — Matting (or CHATTAI) may be used if light weight hessian is not easily available. If matting is used, its smooth surface should be next to the kraft paper.			

3.1.3 The gross weight of the bale shall not exceed 250 kg.

3.1.4 Press the bale to form a sufficiently rigid bale so that it does not itself sag nor do its contents slip.

3.1.5 When the bale is still under pressure, sew the layer of light weight hessian and then the layer of heavy cee cloth around the bale with three ply double jute twine of adequate strength, taking care not to pierce the inner wrappings during sewing. Bind the bale over wooden slats which have been given anti-termite treatment, at right angles to its length and width with 0.9 mm thick and

minimum 16 mm wide new 'medium' grade flat steel strips (or hoops) conforming to the requirements of **B-2**, so that:

- a) the strips nearest the edges of the bale are approximately 10 cm away from the respective edges;
- b) the other strips are equally spaced, at approximately 13 cm from each other; and
- c) the strips are drawn taut and the two ends of each fastened by rivets or other suitable means and the joints so formed wrapped in pieces of hessian.

3.2 Hosiery Yarn (Cones) in Cases

3.2.1 Wrap each cone with kraft paper. Place a sufficient number of cones in a wooden packing case conforming to the requirements of **B-3**, and lined with one layer of waterproof paper conforming to Type 1 of IS 1398 and one layer of medium weight hessian conforming to Type (305 g/m²) of IS 2818 so that when the case is fully lined up, the waterproof paper forms the inner layer and the medium weight hessian forms the outer layer. The packing materials shall be of sufficient size to fully cover the contents of the case. They shall be in sound, clean and dry condition. If necessary, stuff the voids in the case with paper cuttings so as to prevent undue movement of the contents.

NOTE — To facilitate identification, each cone may be marked with the name of the material, name and trade-mark of the manufacturer, count of yarn and nominal weight of the cone.

3.2.2 The gross weight of the case shall not exceed 150 kg in weight.

3.2.3 Fold neatly the layer of waterproof paper over the contents of the case to have adequate overlaps. Fold also the layer of medium weight hessian over the layer of waterproof paper. Stitch the ends of hessian with two strands of jute twine of suitable quality. Nail the lid to the case. Bind the case with 0.9 mm thick and minimum 16 mm wide new 'hard' grade flat steel strips (or hoops) conforming to the requirements of **B-2**, so that:

- a) at least three strips are positioned parallel to the battens,
- b) at least two strips are positioned at right angles to the battens, and
- c) the strips are drawn taut and the two ends of each fastened by rivets and/or other suitable means.

3.3 Hosiery Goods (Fabric) in Bales

3.3.1 Prepare rolls or bundles of fabric. Wrap each roll or bundle in kraft paper and tie it securely with cotton or jute twine.

NOTE — Rolls are prepared in case of fabrics of long continuous length.

3.3.2 Arrange a required number of rolls/bundles over layers of packing materials listed in Table 2 adjusting the layers in such a manner that when the bale is finally made up, light weight hessian forms the innermost layer and heavy cee cloth forms the outermost layer. Place similar layers of packing materials over the top of the arranged rolls/bundles. The packing materials shall be in sound, clean and dry condition and shall be of sufficient size to cover the rolls/bundles with adequate overlaps on all sides.

Table 2 List of Packing Materials

Sl No.	Layer	Material	Conforming to
(1)	(2)	(3)	(4)
i)	Single	Light weight hessian	Type II (229 g/m ²) of IS 2818
ii)	Single	Polyethylene film, or Waterproof paper	Grade 213 of IS 2508 Type 2 of IS 1398
iii)	Single	Heavy cee cloth	B-1

3.3.3 Follow the procedure prescribed in **3.1.4** and **3.1.5**.

3.4 Hosiery Goods (Garments) in Cases

3.4.1 If the goods consist of items, such as socks, stockings, etc, which are sold in pairs, fold the two units of the pair together and place a number of such folded pairs in a cardboard box of suitable size. If the goods consist of other items such as vests, jerseys, etc, fold each garment suitably and place a sufficient number of them in a cardboard box. Close the lid of the box securely.

3.4.2 Place a required number of cardboard boxes in a wooden packing case conforming to the requirements of **B-3**, and lined with one layer of kraft paper, and one layer of waterproof paper (or polyethylene film) so that when the case is fully lined up, the kraft paper forms the inner layer and the waterproof paper (or polyethylene film) forms the outer layer. The kraft paper shall conform to Grade 2 of IS 1397 and waterproof paper shall conform to requirements of Type 1 of IS 1398 and polyethylene film to Grade 213 of IS 2508. The packing materials shall be in sound, clean and dry condition and shall be of sufficient size to fully cover the contents of the case. If necessary, stuff the voids in the case with paper cuttings so as to prevent undue movement of the contents.

NOTE — Packing case with contents should not exceed 175 kg in weight.

3.4.3 Fold the kraft paper and then the waterproof paper (or polyethylene film) over the contents of the case to have adequate overlaps. Secure it with a suitable adhesive. Nail the lid to the case.

Bind the case with 0.9 mm thick and minimum 16 mm wide new 'hard' grade flat steel strips (or hoops) conforming to the requirements of **B-2**, so that:

- a) at least four strips are positioned parallel to the battens.
- b) at least three strips are positioned at right angles to the battens, and
- c) the strips are drawn taut and the two ends of each fastened by rivets or other suitable means.

3.5 Hosiery Goods in Cardboard Boxes (for Post Parcel)

3.5.1 If the goods consist of items, such as socks, stockings, etc, which are sold in pairs, fold each pair suitably. Put a number of such pairs in a polyethylene bag of suitable size. If the goods consist of other items, such as vests, jerseys, etc, fold each garment suitably and put a number of them in a polyethylene bag of suitable size.

3.5.2 Close the opening of the polyethylene bag. Arrange a required number of polyethylene bags in a cardboard box conforming to the requirements of **B-4**, and lined with one layer of polyethylene film or waterproof paper. The polyethylene film or waterproof paper shall be of sufficient size to fully cover the contents of the box and shall conform to Grade 213 of IS 2508 and Type 1 of IS 1398 respectively. If necessary, stuff the voids in the box with paper cuttings so as to prevent undue movement of the contents.

3.5.3 The gross weight of the cardboard box shall not exceed 10 kg unless otherwise prescribed by the postal authorities in the country to which the goods are exported.

3.5.4 Fold the polyethylene film or waterproof paper over the contents of the cardboard box to have adequate overlaps. Secure the polyethylene film or waterproof paper with suitable waterproof adhesive. Close and fasten the lid of the cardboard box suitably so as to make the cardboard box airtight. Secure the cardboard box either with an adhesive tape or cotton twine.

3.5.5 Cover the cardboard box with one layer of grey cotton cloth of adequate strength. Stitch (with approximately 6 stitches per centimetre the cloth around the box with cotton sewing thread of adequate strength, taking care not to pierce the box during stitching.

3.5.6 Seal the seams of the cloth with sealing wax around the box positioning the seals at equal distance of approximately 10 cm from each other.

4 MARKING

4.1 Bales, cases and cardboard boxes shall be marked on at least two opposite sides with indelible ink, with the following information, leaving adequate space for marking by railways and postal authorities:

- a) Leading mark (consignee's name, or initials);
- b) Port of entry and destination, if other than port of entry;
- c) Serial number and total number of packages in the consignment;
- d) Gross weight and net weight of the package;
- e) Dimensions of the package;
- f) Manufacturers' name, initials or trade-mark and country of origin;
- g) Handling mark, such as 'Use No Hooks' (*see* Note);
- h) Name of the material and indent number (it required); and
- j) Any other information required by the buyer or by the law in force.

NOTE — This mark is applicable only in the case of bales.

4.2 All markings shall be stencilled, writing with hand being not permissible. In the case of bales and cases, the markings 3.1 (a) and (b) shall be not less than 8 cm in height and the other markings shall be not less than 4 cm in height.

4.2.1 For post parcels, however, marking shall be legibly written by hand with the letters and figures of not less than 1 cm in height.

4.3 BIS Certification Marking

The product 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 product may be marked with the Standard Mark.

ANNEX A
(*Clause 2*)

LIST OF REFERRED STANDARDS

<i>IS No.</i>	<i>Title</i>
IS 1029 : 1970	Specification for hot-rolled steel strip (Baling) (<i>First Revision</i>)
IS 1397 : 2020	Kraft Paper for Packing and Wrapping — Specification (<i>Third Revision</i>)
IS 1398 : 1982	Specification for packing paper waterproof, Bitumen — Laminated (<i>Second Revision</i>)
IS 1503 : 2023	wooden packing cases- Specification (<i>Fourth Revision</i>)
IS 2508 : 2016	Polyethylene films and sheets - Specification (<i>Third Revision</i>)
IS 2771 (Part 1) : 2022	Corrugated fibre board boxes — Specification: Part 1 General Requirements (<i>Second Revision</i>)
IS 2818 (Part 1) : 2015	Textiles - Hessian - Specification (<i>Third Revision</i>)

ANNEX B

(Clauses 3.1.5, 3.2.1, 3.2.3, 3.4.2, 3.4.3 and 3.5.2, and Tables 1 and 2)

REQUIREMENTS OF PACKING MATERIALS

B-1 HEAVY CEE CLOTH

Heavy cee cloth shall conform to the requirements of Table 3.

Table 3 Requirements of Heavy Cee Cloth

SI No.	Threads per dm		Weight, g per m ³	Breaking Load, Kg, on 100 × 200 mm strips		Weave
	Warp	Weft		Warp <i>Min</i>	Weft <i>Min</i>	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	68	35	665	160	180	Plain Double Warp
Tolerance	± 4 percent	± 2 percent	± 10 percent	—	—	—

B-2 STEEL STRIPS

B-2.1 'Hard' and 'medium' grade steel strips shall conform to the requirements of IS 1029.

The 'medium' grade steel strips shall be painted with one coat of primine rod oxide or red lead paint.

B-3 WOODEN PACKING CASE

B-3.1 The packing case shall conform to the requirements of Grade C, style 3(b) packing case prescribed in IS 1503. It shall be given anti-termite treatment.

B-4 CARD BOARD BOX FOR POST PARCEL

B-4.1 Card board box shall be fabricated out of solid fibre board of substance 600 g/m^2 and shall conform to the requirements of IS 2771.

B-4.2 The dimensions of the cardboard box shall be as follows:

Maximum length = 1 m

Length and girth combined = 1.8 m