

भारतीय मानक ब्यूरो
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भारतीय मानक मसौदा

वस्त्रादि — ऊन के होजरी धागे एवम सामान की पैकेजिंग — रीति संहिता

(IS 2518 का पहला पुनरीक्षण)

(Draft Indian Standard)

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

(First Revision of IS 2518)

ICS 59.060.10, 59.080.20

Hoisery Sectional Committee,
TXD 10

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FOREWORD

(Formal clauses will be added later)

This standard was first published in 1964. This revision has been made in the light of experience gained since its publication and to incorporate the following major changes:

- a) Use of Permethrin has been specified as insecticide agent instead of DDT and use of DDT has been dispensed with.
- b) Title of the standard has been modified; and
- c) BIS Certification marking clause has been updated.

Packing plays a very important part in preventing damage in handling and in the safe transport of goods, their storage and marketing. Proper packaging with satisfactory quality of 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 wool 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 deliveries 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

1.1 This code prescribes the method of packaging of wool hosiery yarn and goods intended for overseas markets.

1.1.1 This code applies to hosiery yarn used for hand knitting also.

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 rectangular shape, each weighing 5 kg. In case the yarn has not been given moth-proof treatment during manufacture, sprinkle each bundle with sufficient quantity of Permethrin, Para dichlorobenzene (PDCB) or any other suitable insecticides to ensure protection against attack by insects (*see Note*) Wrap each bundle first in kraft paper conforming to

the requirements of **B-1** and then in polyethylene film conforming to the requirements of **B-2** to overlap adequately. Tie each bundle securely with cotton twine of suitable quality.

NOTE — To facilitate identification, each bundle may also be marked with the count and quality of yarn.

Example: 18 tex, 56s quality.

3.1.2 Arrange 20 bundles to make a bale of rectangular shape over layers of packing materials listed in Table 1, adjusting the layers in such a manner that when the bale is finally made up, the material listed first forms the inner most layer and the material listed last forms the outer most layer. Place similar layers of packing materials over the top of the bale. The packing materials shall be in sound, clean and dry condition and shall be of sufficient size to cover the bale with adequate overlaps on all sides.

Table 1 Packing Materials
(Clause 3.1.2)

Sl No.	Layer	Material	Conforming to
(1)	(2)	(3)	(4)
i)	Single	Kraft paper	B-1
ii)	Single	Polyethylene film or Waxed paper	B-2 B-3
iii)	Single	Medium weight hessian	B-4
iv)	Single	Polyethylene film or Waxed paper	B-2 B-3
v)	Single	Cloth heavy cee	B-5
NOTE — If cloth heavy cee is not available, two layers of medium weight hessian may be used in place of one layer of cloth heavy cee.			

3.1.3 Press the bale to form a sufficiently rigid bale.

NOTE — The bale should be sufficiently rigid so that it does not itself sag nor do its contents slip.

3.1.4 When the bale is still under pressure, sew the layer of medium weight hessian and then the layer of cloth heavy cee around the bale with three-ply double jute twine of adequate strength, taking care not to pierce the inner wrappings during stitching. Bind the bale (over wooden slats) at right angles to its length with 0.9 mm (or 20 SWG) thick and minimum 20 mm wide new ‘medium’ grade flat steel strips (or hoops) conforming to the requirements of **B-6** so that:

- a) the strips nearest the edges of the bale are approximately 13 cm away from the respective edges of the bale;
- b) the other strips are positioned at approximately 13 cm from each other and are equally spaced; 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, Spools or Cheeses) in Cases

3.2.1 In case the yarn has not been given a moth-proof treatment during manufacture, sprinkle each package with sufficient quantity of Permethrin, Para dichlorobenzene (PDCB) or any other suitable insecticides to ensure protection against attack by insects (*see* Note). Place each package in a polyethylene bag and/or cardboard box of a sufficient size. Close the polyethylene bag/ cardboard box with a waterproof adhesive.

NOTE — To facilitate identification, each cone, spool, or cheese may also be marked with the count and quality of yarn.

3.2.2 Place a sufficient number of polyethylene bags/cardboard boxes in a wooden packing case conforming to the requirements of **B-7** and lined with:

- a) one layer of polyethylene film or waxed paper,
- b) one layer of kraft paper, and
- c) one layer of polyethylene film or waxed paper.

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 and in quality shall conform to the applicable requirements of Appendix A, If necessary, stuff the voids in the case with paper cuttings so as to prevent undue movement of the contents.

NOTE — Packing case with the contents should not exceed 125 kg in weight.

3.2.3 Fold the packing materials over the contents of the case to have adequate overlaps. Secure the polyethylene film (or waxed paper) with a suitable adhesive. Nail the lid (of the case) to the case. Bind the case with 0.7 mm (or 22 SWG) thick and minimum 16 mm wide new ‘hard’ grade flat steel strips (or hoops) conforming to the requirements of **B-6** 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.

3.3 Hand-Knitting Yarn (Hanks or Ball) in Cases

3.3.1 In case the yarn has not been given a moth-proof treatment during manufacture, sprinkle the yarn with sufficient quantity of Permethrin, Para dichlorobenzene (PDCB) or any other suitable insecticides to ensure protection against attack by insects. Put the required number of hanks or balls of similar quality, colour and size in a polyethylene bag so that the weight of each bag is 0.25 kg in case of yarns of fine quality and 0.5 kg in case of those of coarse quality. Close the opening of the polyethylene bag.

NOTE — Yarns spun from over 60s quality tops are of fine quality; those spun from lower quality tops are of coarse quality.

3.3.2 Arrange 5 (in case of coarse quality) or 10 (in case of fine quality) such polyethylene bags in a cardboard box so that the total weight of the contents does not exceed 2.5 kg. Close the lid of the cardboard box and fasten it with a waterproof adhesive.

3.3.3 Follow the procedure prescribed in **2.2.2** and **2.2.3**.

3.4 Hosiery Goods in Cases

3.4.1 In case the hosiery goods have not been given a moth-proof treatment during manufacture, sprinkle each piece with sufficient quantity of Permethrin, Para dichlorobenzene (PDCB) or any other suitable insecticides to ensure protection against attack by insects.

3.4.2 If the goods consist of hosiery items, such as socks, stockings, etc, fold (*see* Note 1) each pair at the heels and place the folded pair in a polyethylene bag of a suitable size. If the goods consist of other hosiery items, such as mufflers, vests, jerseys, etc, fold each garment suitably (*see* Note 2). Place each garment in a polyethylene bag of a suitable size.

NOTES

1 In case of items which are sold in pairs, the two units in the pair should be kept together.

2 In order that unsightly creases do not result in the garment, it is very essential to fold the garments neatly prior to packing, because wool garments tend to acquire permanent creases when kept under pressure for long periods of time.

3.4.3 Place the required number of such polyethylene bags in a cardboard box of suitable size. Secure the lid of the cardboard box and fasten it using a waterproof adhesive. Tie the cardboard box with a tape.

3.4.4 Follow the procedure prescribed in **2.2.2** and **2.2.3**.

3.5 Hosiery Goods Sent Through Post Parcel

3.5.1 Follow the procedure prescribed in **2.4.1** and **2.4.2**.

3.5.2 Close the opening of the polyethylene bags. Arrange them in a suitable cardboard box lined with:

- a) one layer of kraft paper; and
- b) one layer of polyethylene film or waxed paper.

The packing materials shall be of sufficient size to fully cover the contents of the box. They shall be in sound, clean and dry condition and shall conform to the applicable requirements of Appendix A. If necessary, stuff the voids in the box with paper cuttings so as to prevent undue movements of the contents.

NOTE — The weight of a cardboard box with its contents should not exceed 10 kg unless otherwise prescribed by the postal authorities of the country to which the goods are exported.

3.5.3 Fold the packing materials over the contents of the cardboard box to have adequate overlaps. Secure the polyethylene film (or waxed paper) with a suitable waterproof adhesive. Close and fasten the lid of the cardboard box suitably so as to make the cardboard box air-tight. Bind the cardboard box at right angles to its length and width with round steel or copper wire of diameter 2 mm (or 14 SWG) so that:

- a) two wires are positioned at right angles to the length of the box and each wire is 13 cm away from the respective edge of the box;
- b) one wire is positioned at right angles to the width of the box, in the centre; and
- c) the wires are drawn taut and the two ends of each twisted together and the joints so formed wrapped in pieces of grey cotton cloth.

3.5.4 Cover the cardboard box with a layer of polyethylene film (or waxed paper) conforming to the applicable requirements of Appendix A, secure the polyethylene film (or waxed paper) and wrap the box then with grey cotton cloth. Stitch (with approximately 6 stitches per cm) the cloth around the box with a cotton sewing thread of adequate strength (*see* IS 1720), taking care not to pierce the inner wrappings during stitching.

3.5.5 Seal the seam of the cloth with sealing wax all around the box, positioning the seals at equal distance of approximately 10 cm from each other.

4 MARKING

4.1 Bales, cases or cardboard boxes (meant for post parcel) shall be marked on at least two opposite sides, with indelible ink, with the following information:

- 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) Manufacturer's name, initials or trade mark and country of origin;
- g) Handling mark, such as 'Use No Hooks' (*see* Note);
- h) If required, name of the material and indent number; 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 stenciled, writing with hand being not permissible.

4.3 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.

4.3.1 In the case of cardboard boxes (meant for post parcel), the letters and figures shall be not less than 2 cm in height.

4.3 BIS Certification Marking

The product(s) 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(s) 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 1503 : 2023	wooden packing cases (<i>Fourth Revision</i>)
IS 1720 : 1978	Specification for cotton sewing threads (<i>First Revision</i>)
IS 2508 : 2016	Polyethylene films and sheets — Specification (<i>Third Revision</i>)

ANNEX B

(Clause 3.1.1, 3.1.2, 3.1.4, 3.2.2, 3.2.3, 3.5.2 and 3.5.4)

REQUIREMENTS OF PACKING MATERIALS

B-1 KRAFT PAPER

B-1.1 Kraft paper shall conform to the requirements of Grade 2 of IS 1397.

B-2. POLYETHYLENE FILM

B-2.1 Polyethylene film shall be of at least 100 microns in thickness and shall conform to the requirements of Grade 123 of IS 2508.

B-3 WAXED PAPER

B-3.1 Waxed paper shall be of best trade quality.

B-4 MEDIUM WEIGHT HESSIAN

B-4.1 Medium weight hessian shall conform to the requirements of Table 2.

Table 2 Requirements of Medium Weight Hessian

(Clause B-4.1)

Sl No.	Designation	Threads per dm		Weight in g per m ²	Breaking Load in kg, on 100 × 200 mm strips	
		Warp	Weft		Warpway <i>Min</i>	Weftway <i>Min</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	305 g/m ²	47	47	305	102	104
ii)	Tolerance	± 5 percent	± 5 percent	⁺⁵ ₋₃ percent	—	—

B-5 CLOTH HEAVY CEE

B-5.1 Cloth heavy cee shall comply with the requirements of Table 3.

Table 3 Requirements of Cloth Heavy Cee
(Clause B-5.1)

Sl No.	Threads per dm		Weight in g per m ²	Breaking Load in 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	Plane DW
ii)	± 5 percent		± 10 percent	—	—	—

B-6 STEEL STRIPS

B-6.1 ‘Hard’ and ‘medium’ grade steel strips shall conform to the requirements of IS 1029.

B-7 PACKING CASE

B-7.1 The packing case shall conform to the requirements of Style 3 (b) packing case prescribed in IS 1503.