

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7992 (1983): plywood cases for packing tobacco for export [CED 9: Timber and Timber Stores]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



BLANK PAGE



IS : 7992 - 1983

*Indian Standard*  
SPECIFICATION FOR  
PLYWOOD CASES FOR PACKING  
TOBACCO FOR EXPORT  
( *First Revision* )

UDC 621.798.12 : 674.61 — 419.32 : 663.97



© Copyright 1986

**INDIAN STANDARDS INSTITUTION**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

*Indian Standard*

**SPECIFICATION FOR  
PLYWOOD CASES FOR PACKING  
TOBACCO FOR EXPORT**

*( First Revision )*

Wood and Wood Products Containers Sectional Committee,  
MCPD 16

*Chairman*

SHRI A. C. SEKHAR  
17-1-391/54, Subramanya Nagar  
Saidabad, Hyderabad

*Members*

*Representing*

SHRI R. BALASUBRAMANYAN	Central Institute of Fisheries Technology, Cochin
SHRI S. K. BANERJEE	National Test House, Calcutta
SHRI D. K. KANUNGO ( <i>Alternate</i> )	
SHRI P. G. DESHMUKH	Indian Institute of Packaging, Bombay
SHRI C. S. PURUSHOTHAMAN ( <i>Alternate</i> )	
DIRECTOR	Indian Plywood Industries Research Institute, Bangalore
DR H. N. JAGADEESH ( <i>Alternate</i> )	
SHRI M. P. DUBEY	Bharat Heavy Electricals Ltd, Bhopal
SHRI S. K. DUTTA ( <i>Alternate I</i> )	
SHRI K. V. L. K. VENURAO ( <i>Alternate II</i> )	
SHRI P. T. KANSARA	Tata Engineering & Locomotive Co Ltd, Pune
SHRI A. H. BAKRE ( <i>Alternate I</i> )	
SHRI S. P. CHOPRA ( <i>Alternate II</i> )	
SHRI S. KRISHNAMURTHY	Directorate General Ordnance Factories, Jabalpur
SHRI P. K. KARMAKAR ( <i>Alternate</i> )	
SHRI Y. P. MARKS	Composite Wood Products, Bombay
SHRI S. N. MEHRA	Indian Chemical Manufacturers Association, Calcutta
DR A. N. NAYER	Skon Packaging Consultants, New Delhi
SHRI SANJAY K. NAYER ( <i>Alternate</i> )	
SHRI M. R. PARANJPE	Ambalal Sarabhai Enterprises Pvt Ltd, Vadodara
SHRI O. P. PRAHLADKA	Hitachi-K K Mfg Co, Calcutta
SHRI C. P. PRAHLADKA ( <i>Alternate</i> )	

( Continued on page 2 )

© Copyright 1986

INDIAN STANDARDS INSTITUTION

This publication is protected under the *Indian Copyright Act* ( XIV of 1957 ) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

( Continued from page 1 )

<i>Members</i>	<i>Representing</i>
SHRI P. S. PRUTHI	Indian Pest Control Association, Bombay
SHRI P. V. HEBBLE ( <i>Alternate</i> )	
SHRI R. S. RANA	Horticulture Department, Government of Himachal Pradesh, Shimla
SHRI H. L. KOCHHER ( <i>Alternate</i> )	
SHRI R. N. SAXENA	Railway Board, Ministry of Railways, New Delhi
DEPUTY DIRECTOR TRAFFIC ( SPECIAL DUTY ) ( <i>Alternate</i> )	
SHRI SHARAN SINGH	Directorate General of Supplies and Disposals, New Delhi
SHRI N. K. SHUKLA	Forest Research Institute and Colleges, Dehra Dun
SHRI P. K. SRIVASTAVA	Escorts Limited, Faridabad
SHRI O. P. SHARMA ( <i>Alternate</i> )	
CAPT N. A. TAMHANE	Indian National Shipowners Association, Bombay
SHRI A. G. TANSALE	Kirloskar Oil Engines Ltd, Pune
SHRI V. D. SARDESAI ( <i>Alternate</i> )	
SHRI P. S. DAS, Director ( MCPD )	Director General, ISI ( <i>Ex-officio Member</i> )

*Secretary*

SMT SHASHI SAREEN  
Assistant Director ( MCPD ), ISI

### Crates and Packing Cases Subcommittee, MCPD 16 : 2

*Convener*

SHRI N. K. SHUKLA                      Forest Research Institute & Colleges, Dehra Dun

*Members*

DEPUTY DIRECTOR, TRAFFIC RATES	Railway Board, Ministry of Railways, New Delhi
DEPUTY DIRECTOR, TRAFFIC ( SPECIAL DUTY ) ( <i>Alternate</i> )	
SHRI P. G. DESHMUKH	Indian Institute of Packaging, Bombay
SHRI C. S. PURUSHOTHAMAN ( <i>Alternate</i> )	
SHRI S. K. DIWAN	Federation of Association of Small Industries of India, New Delhi
DIRECTOR	Indian Plywood Industries Research Institute, Bangalore
DR H. N. JAGADEESH ( <i>Alternate</i> )	
SHRI SATYA NARAIN GARG	Govind Narain and Bros, Kanpur
SHRI SURESH NARAIN GARG ( <i>Alternate</i> )	
SHRI K. S. LAULY	The Indian Plywood Manufacturing Co Ltd, Bombay
LT-COL G. B. SINGH ( <i>Alternate</i> )	
SHRI K. R. NATRAJ	Sundaram Industries Pvt Ltd, Madurai
SHRI NIRMAL SINGH	Directorate General of Inspection ( Ministry of Defence ), New Delhi
SHRI C. G. TECHCHANDANI ( <i>Alternate</i> )	
SHRI SAMPURAN SINGH	Timpack Pvt Ltd, Calcutta
MAJ T. K. SOMASHEKAR	Madras Sapper Ex-servicemen's Rehabilitation Association, Bangalore

**AMENDMENT NO. 1 FEBRUARY 1993**  
**TO**  
**IS 7992 : 1983 SPECIFICATION FOR PLYWOOD CASES**  
**FOR PACKING TOBACCO FOR EXPORT**

*( First Revision )*

*( Page 4, clause 4.1, first sentence )* — Substitute the following for the existing sentence:

'Plywood used for the fabrication of the case shall conform to the requirements of Type AB, MR Grade of IS 303 : 1989.'

*( Page 4, foot-note marked with '†' mark )* — Substitute the following for the existing foot-note:

'Specification for plywood for general purposes ( third revision ) .'

( CED 33 )

Reprography Unit, BIS, New Delhi

*Indian Standard*  
SPECIFICATION FOR  
PLYWOOD CASES FOR PACKING  
TOBACCO FOR EXPORT  
( *First Revision* )

**0. FOREWORD**

**0.1** This Indian Standard ( First Revision ) was adopted by the Indian Standards Institution on 26 September 1983, after the draft finalized by the Wood and Wood Products Containers Sectional Committee had been approved by the Marine, Cargo Movement and Packaging Division Council.

**0.2** The current indigenous practices for packing tobacco in bulk for export include packing it in a plywood case taking all necessary precautions that it withstands the hazards encountered in transportation. Such cases are required to be so constructed that they are amenable for easy opening, with the cake of tobacco left intact inside the case, for 'netting' purposes.

**0.3** Two types of packing, namely, wooden cases and jute gunny or hessian bales are recommended in IS : 4698-1968\*. This standard covers the requirements for packing in plywood cases.

**0.4** This standard was first published in 1976. It has been revised to bring it in line with current trade practices. In the revised version, the moisture content of battens has been reduced from 18 to 15 percent. In the packing clause, provision has been made to use any suitable liner instead of only high density polyethylene. The clause for strapping of the box has also been suitably modified in accordance with the prevailing practices.

**0.5** 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†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

---

\*Code of practice for seaworthy packing of unmanufactured cigarette type tobacco.

†Rules for rounding off numerical values ( *revised* ).



## 1. SCOPE

1.1 This standard prescribes the requirements for plywood cases for packing tobacco for export.

## 2. TERMINOLOGY

2.0 For the purpose of this standard, the following definition in addition to those given in IS : 707-1976\*, and IS : 6703-1972† shall apply.

2.1 **Objectionable Knots** — A live knot in a batten shall be considered objectionable if its diameter along the major axis exceeds one-third of the width of the batten; provided such knots do not reach the edge of the batten and are not more than one per 30 cm length of the batten or are situated within 25 mm from a place through which a nail will be driven.

## 3. DIMENSIONS

3.1 The dimensions of a typical case are as follows ( see Fig. 1 and 2 ), or shall be as agreed to between the purchaser and supplier:

<i>Dimensions</i>	<i>Length</i> mm	<i>Width</i> mm	<i>Height</i> mm
External	1 200	750	750
Internal	1 137.5	737.5	737.5

## 4. MATERIALS

4.1 **Plywood** — Plywood used for the fabrication of the case shall conform to the requirements of Type BC, WWR Grade of IS‡: 303-1975‡. The minimum thickness of the plywood shall be 6 mm.

### 4.2 Battens

4.2.1 Battens shall be manufactured from any of the timber species given under Group I, II or III of Appendix A of IS : 6662-1980§.

4.2.2 The battens shall be well seasoned to moisture content not exceeding 15 percent of its oven-dry mass when determined according to Appendix A of IS : 8358-1977||. They shall be reasonably straight grained, free from insect attack, centre heart ( pitch ), any kind of decay, objectionable knots, splits, warping and any other defect which is likely to reduce the strength of the battens.

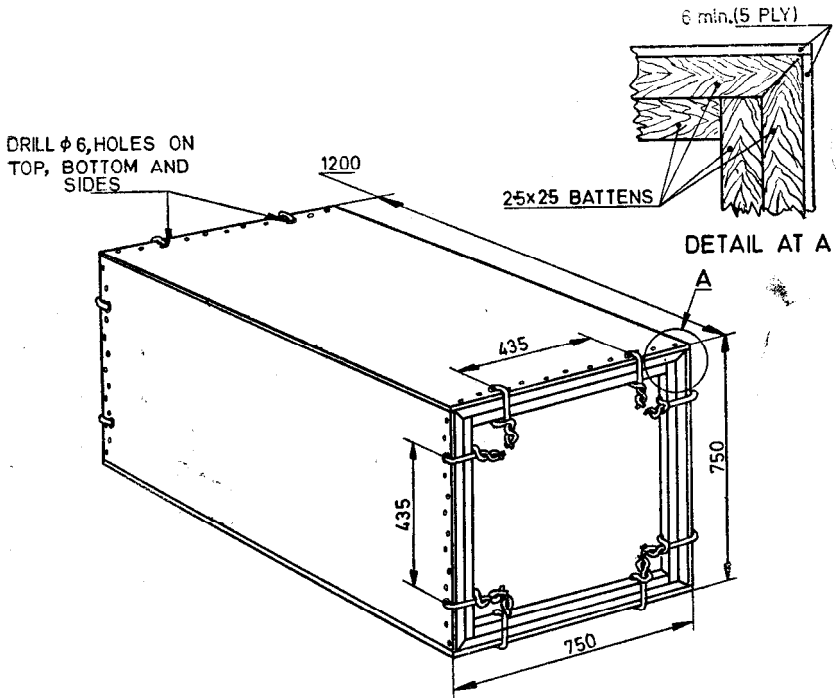
\*Glossary of terms applicable to timber technology and utilization ( *second revision* ).

†Glossary of wooden packaging terms.

‡Specification for plywood for general purposes ( *second revision* ).

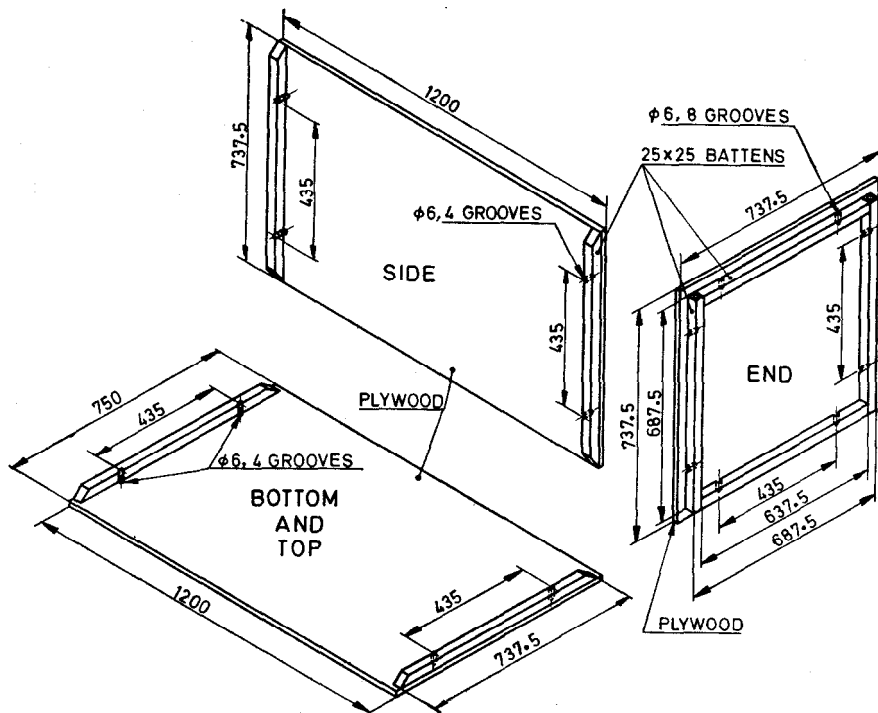
§Specification for timber species suitable for wooden packaging ( *first revision* ).

||Performance tests for wooden packing cases.



All dimensions in millimetres.

FIG.1 ASSEMBLY OF PLYWOOD CASE



All dimensions in millimetres.

FIG. 2 DETAIL OF PLYWOOD CASE

**4.3 Nails** — Countersunk head nails not less than 2.00 mm in shank diameter and conforming to IS : 723-1972\* shall be used for fastening the plywood panels to the battens. The length of the nails shall be not less than 30 mm.

**4.4 Wire** — Unless otherwise specified, soft round aluminium wire conforming to IS : 739-1977† shall be used for the fabrication of the packing cases. The diameter of the aluminium wire shall be not less than 3 mm.

\*Specification for steel countersunk head wire nails (first revision).

†Specification for wrought aluminium and aluminium alloys, wire for general engineering purposes (second revision).

## 5. CONSTRUCTION

### 5.1 Components

**5.1.1 Top and Bottom Shooks** — The top and bottom shooks shall be made from 5-ply panels  $1\ 200 \times 750$  mm fixed with two battens of  $737.5 \times 25 \times 25$  mm mitred on both ends as shown in Fig. 2.

**5.1.2 Side Shooks** — Two side shooks shall be made from 5-ply panels  $1\ 200 \times 737.5$  mm fixed with two  $737.5 \times 25 \times 25$  mm battens mitred on both ends as shown in Fig. 2.

**5.1.3 End Shooks** — End shooks shall be made from 5-ply panels  $737.5 \times 737.5$  mm fixed with four battens comprising two battens of  $687.5 \times 25 \times 25$  mm and rest two battens of  $637.5 \times 25 \times 25$  mm as shown in Fig. 2.

**5.2** Each batten shall be fixed with 14 to 16 nails as recommended in 4.3 to the plywood panels as shown in Fig. 1.

**5.3** Make 6 mm dia grooves on all battens of the end shooks as shown in Fig. 2.

**5.3.1** Drill 6 mm grooves and holes through the battens, panels on the side, bottom and top shooks as shown in Fig. 2.

**5.4 Assembly** — Assemble the case with bottom, two side and two end shooks with the help of 12 pieces of aluminium wire each of suitable length as shown in Fig. 1.

## 6. PACKING OF TOBACCO

**6.1** After assembling the case as in 5.4, a suitable liner, as agreed to between the purchaser and the seller shall be placed against all the interior walls of the packing case. Spread the tobacco in layers one upon the other in the case lined with suitable liner. Press the strips firmly from one to the other end of the case by using a thick wooden plank. A net mass of approximately 200 kg of tobacco may be packed in the typical case of the dimensions mentioned in 3.1 by an alternate process of filling and pressing with wooden plank.

NOTE — For a detailed procedure for packing, see 2.2 of IS : 4698-1968\*.

## 7. CLOSING THE BOX

**7.1** After filling the tobacco, fold the liner. The box shall be closed with the top shook as prepared in 5.1.1. The case shall be sealed with the 4 aluminium wires of suitable length as shown in Fig. 1.

\*Code of practice for seaworthy packing of unmanufactured cigarette type tobacco.

**7.1.1** The plywood case shall be further wound by three or four gerrard or aluminium wires. The wire shall be suitably secured.

## **8. MARKING**

**8.1** The plywood case shall be marked at least on two opposite sides with indelible ink with the following particulars:

- a) Name or trade-mark of the manufacturer of tobacco;
- b) Port of destination;
- c) Customer's grade;
- d) Serial number of the package;
- e) Gross mass, tare and net mass of the package; and
- f) Any other information required by the buyer and by the law in force of the concerned countries.

**8.1.1** The case may also be marked with any handling instructions in accordance with IS : 1260 ( Part 2 )-1979\*.

**8.1.2** The case may also be marked with the ISI Certification Mark.

**NOTE** — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

---

\*Pictorial markings for handling and labelling of goods: Part 2 General goods ( second revision ).



# INDIAN STANDARDS INSTITUTION

## Headquarters:

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

Telephones : 331 0131 331 1375

Telegrams : Manaksanstha  
( Common to all Offices )

## Regional Offices:

	<i>Telephone</i>
*Western : Manakalaya, E9 MIDC, Marol Andheri ( East ) BOMBAY 400093	6 32 92 95
†Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola, CALCUTTA 700054	36 24 99
Northern : SCO 445-446, Sector 35-C CHANDIGARH 160036	{ 2 18 43 3 16 41
Southern : C. I. T. Campus, MADRAS 600113	{ 41 24 42 41 25 19 41 29 16

## Branch Offices:

‘Pushpak’, Nurmohamed Shaikh Marg, Khanpur AHMADABAD 380001	{ 2 63 48 2 63 49
‘F’ Block, Unity Bldg, Narasimharaja Square, BANGALORE 560002	22 48 05
Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHOPAL 462003	6 67 16
Plot No. 82/83, Lewis Road, BHUBANESHWAR 751002	5 36 27
53/5 Ward No. 29, R. G. Barua Road, 5th Byelane, GUWAHATI 781003	—
5-8-56C L. N. Gupta Marg, HYDERABAD 500001	22 10 83
R14 Yudhister Marg, C Scheme, JAIPUR 302005	{ 6 34 71 6 98 32
117/418 B Sarvodaya Nagar, KANPUR 208005	{ 21 68 76 21 82 92
Patliputra Industrial Estate, PATNA 800013	6 23 05
Hantex Bldg (2nd Floor), Rly Station Road, TRIVANDRUM 695001	52 27
<i>Inspection Office (With Sale Point):</i>	
Institution of Engineers (India) Building, 1332 Shivaji Nagar, PUNE 411005	5 24 35

\*Sales Office in Bombay is at Novelty Chambers, Grant Road, BOMBAY 400007 89 65 28

†Sales Office in Calcutta is at 5 Chowringhee Approach, P.O. Princep Street, CALCUTTA 700072 27 68 00