

**SRI LANKA STANDARD 109:1981**  
**UDC 621.798.12:674.243**

**SPECIFICATION FOR**  
**METAL FITTINGS FOR PLYWOOD TEA CHESTS**  
**(FIRST REVISION)**

**BUREAU OF CEYLON STANDARDS**



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FOR PLYWOOD TEA CHESTS  
(FIRST REVISION)

SLS 109:1981

Gr.5

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SRI LANKA STANDARD  
SPECIFICATION FOR METAL FITTINGS  
FOR PLYWOOD TEA CHESTS  
(FIRST REVISION)

#### FOREWORD

This Sri Lanka Standard specification has been prepared by the Drafting Committee on Tea Chests. It was approved by the Civil Engineering Divisional Committee of the Bureau of Ceylon Standards and was authorized for adoption and publication by the Council of the Bureau on 1981-07-28.

This specification was first published in 1971 as CS 109. The present revision includes a revised sampling scheme, tolerances for dimensions of fittings, a clause on marking and it covers packing requirements of metal fittings for both 12-batten and 8-batten type tea chests. Detailed specifications for rivets are not included as these are not manufactured in Sri Lanka.

This specification covers only the requirements for metal fittings. The requirements for plywood panels and battens are covered in CS 108 and the requirements for the complete tea chest are covered in SLS 378.

All standard values in this specification are given in SI units.

For the purpose of deciding whether a particular requirement of this specification is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value should be the same as that of the specified value in this specification.

#### 1 SCOPE

This specification covers the requirements for metal fittings used in the assembly of plywood tea chests specified in SLS 378.

## 2 REFERENCES

This specification makes reference to the following Sri Lanka Standards:

- CS 7 Cold drawn mild steel wire for the manufacture of wire nails
- CS 8 Wire nails
- CS 102 Presentation of numerical values
- CS 108 Components for plywood tea chests
- SLS 378 Plywood tea chests

## 3 COMPONENTS

Metal fittings for plywood tea chests shall consist of the following:

### 3.1 Metal strips

- a) Corner strips (flat) - 3 per chest;
- b) Corner strips (angled  $90^{\circ}$ ) - 1 per chest; and
- c) Top and bottom strips, angled  $90^{\circ}$  and 'V' notched - 8 per chest.

### 3.2 Fixing accessories

- a) Wire nails, 25 mm;
- b) Wire nails, 30 mm (see 5.1);
- c) Tenterhooks; and
- d) Bifurcated rivets - only for 8-batten type chests.

## 4 REQUIREMENTS FOR METAL STRIPS

4.1 These shall be made from bright tin plate free from surface imperfections. The longitudinal edges shall be folded over flat (towards the outer side) to form beaded edges as shown in Figure 1a and Figure 1b.

4.2 In the case of strips provided with 'V' notch (see 3.1(c)) the 'V' notch shall extend up to the fold.

*NOTE - The 'V' notch may differ in shape from that shown in the figure. But the metal strip should be capable of being bent at right angles at the 'V' notch without damage.*

4.3 Dimensions of metal strips shall be as indicated in Figure 1a, Figure 1b, Figure 2 and Table 1.

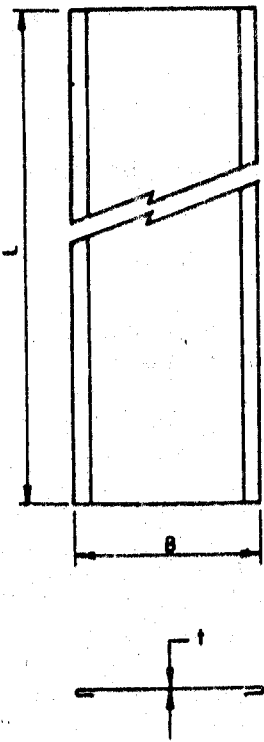


FIGURE 1a  
Corner strips flat



FIGURE 1b  
Corner strips angled

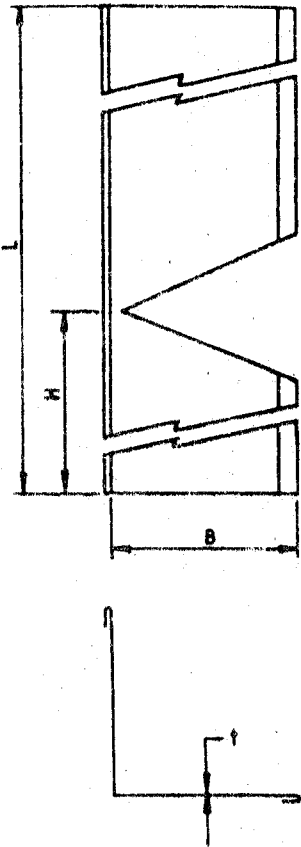


FIGURE 2  
Top and bottom strips

TABLE 1 - Dimensions of metal strips  
(All dimensions in millimetres)

(1)	Corner strips (Fig. 1a & Fig. 1b) (2)	Top and bottom strips (Fig.2)	
		Chest size 600 x 500 x 400 (3)	Chest size 600 x 400 x 400 (4)
Length (L)	575 + 10 - 0	465 (min)	415 (min)
Width (B)	50 ± 1.5	1.9 ± 1.5	19 ± 1.5
Thickness (t) 12-batten chests	0.24 to 0.35	0.24 to 0.35	0.24 to 0.35
Thickness (t) 8-batten chests	0.376 (min)	0.315 (min)	0.315 (min)
Position of notch (H)		4/9 L or 5/9 L	1/2 L

## 5 REQUIREMENTS FOR FIXING ACCESSORIES

### 5.1 Wire nails

Wire nails supplied as fittings for plywood tea chests shall be of round mild steel chequered head type specified in CS 8 and shall be of the following sizes.

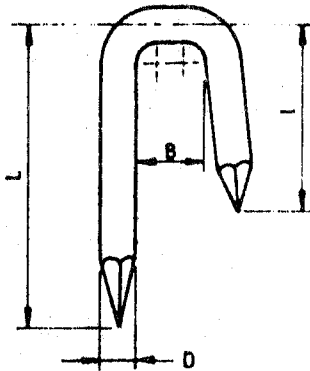
- a) Length 25 mm and shank diameter 2.00 mm; and
- b) Length 30 mm and shank diameter 2.00 mm.

These shall conform to the requirements of CS 8, except that the wire nails need not be polished.

### 5.2 Tenterhooks

Wire used for the manufacture of tenterhooks shall conform in every respect, except in the diameter, to CS 7. Dimensions shall be as indicated in Figure 3.

Tenterhooks shall be flat topped and shall have straight ends and sharp points.



$$L = 25 \begin{matrix} + 0.76 \text{ mm} \\ - 0 \end{matrix}$$

$$l = 12 \begin{matrix} + 0.76 \text{ mm} \\ - 0 \end{matrix}$$

$$B = 5 \text{ mm (min)}$$

$$D = 2.34 \begin{matrix} + \\ - 0.06 \text{ mm} \end{matrix}$$

FIGURE 3 - Tenterhooks

*NOTE - Wire used for the manufacture of tenterhooks is of a special diameter viz. 2.34 mm (13 SWG).*

### 5.3 Bifurcated rivets

Bifurcated rivets used for the assembly of 8-batten type plywood tea chests shall be made of annealed mild steel and be of nominal length 12 mm.

## 6 PACKAGING

Metal fittings shall be packed in wooden cases. The number of fittings to be packed shall be as given in Table 2 and Table 3. Before packing in cases the fittings of different types shall be separately bundled or packeted.



TABLE 2 - Packing list for metal strips (for 50 tea chests)

Item	Number
Corner strips - flat	150
Corner strips - angled	50
Top and bottom strips-angled and notched	450

NOTE - Number of metal fittings per case shall be the same for any size of tea chest.

TABLE 3 - Packing list for fixing accessories (for 50 tea chests)

Item (1)	Chest size 600 mm x 500 mm x 400 mm		Chest size 600 mm x 400 mm x 400 mm	
	12-batten type (2)	8-batten type (3)	12-batten type (4)	8-batten type (5)
25-mm wire nails	8600	3200	8200	2800
30-mm wire nails	800	1800	800	1600
Tenterhooks	2400	2400	2000	2000
Rivets	-	4000	-	4000

## 7 MARKING

Each case of fittings shall be marked with the following:

- Manufacturer's name or Trade Mark;
- Size and type of tea chest for which the fittings may be used; and
- Batch code number or date of manufacture.

## 8 SAMPLING

### 8.1 Lot

In any consignment all the cases of metal fittings for a given type of chest shall be grouped together to constitute a lot.

### 8.2 Defective fittings

Any metal fitting failing to conform to any one or more of the relevant requirements of this specification shall be termed a defective fitting.

### 8.3 Scale of sampling

8.3.1 Each type of fitting in each lot shall be sampled and inspected separately for ascertaining the conformity of the lot to the requirements of this specification.

8.3.2 The number of fittings of any particular type to be drawn for inspection shall depend on the number of fittings in the lot and shall be in accordance with Table 4.

TABLE 4 - Scale of sampling

No. of fittings in the lot	No. of fittings to be selected	Permissible number of defective fittings
Up to 1 200	10	0
1 201 to 4 800	30	1
4 801 to 10 000	50	2
10 001 to 15 000	80	3
15 001 and above	120	5

8.3.3 These fittings shall be drawn at random from the lot.

For this purpose one case shall be selected from every 5 cases or part thereof to a maximum of 10 cases.

The required number of fittings shall be drawn by taking an equal number of fittings as far as possible from each of the selected packets.

### 8.4 Testing of sample

8.4.1 All the fittings in each of the samples drawn as above shall be separately inspected for each of the relevant requirements of this specification.

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*Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*



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