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# INTERNATIONAL STANDARD 3798

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## **Tinplate and blackplate – Minimum packaging requirements**

*Fer blanc et fer noir – Conditions minimales d'emballage*

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## FOREWORD

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Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3798 was drawn up by Technical Committee ISO/TC 17, *Steel*, and was circulated to the Member Bodies in July 1975.

It has been approved by the Member Bodies of the following countries :

Australia	France	Romania
Austria	Germany	South Africa, Rep. of
Belgium	Hungary	Spain
Brazil	India	Sweden
Bulgaria	Ireland	Switzerland
Canada	Italy	Turkey
Chile	Japan	United Kingdom
Czechoslovakia	Netherlands	U.S.A.
Denmark	New Zealand	U.S.S.R.
Finland	Norway	Yugoslavia

No Member Body expressed disapproval of the document.

## Tinplate and blackplate – Minimum packaging requirements

### 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies minimum packaging requirements associated with the transportation of tinplate and blackplate.

It comprises two sections dealing respectively with the minimum packaging requirements associated with tinplate and blackplate supplied in cut lengths and with tinplate supplied in coil form.

In each section minimum requirements relating to two types of packages, designated types A and B, are specified.

**Type A Package :** The minimum requirements specified for this type of package are intended to relate to transportation over shorter distances and where severe climatic or corrosive conditions are not likely to be encountered.

**Type B Package :** The minimum requirements specified for the type B package are intended to relate to more severe conditions of transportation, for example where variable climatic conditions are likely to be encountered and where, generally, the distance involved is greater than in the case of type A package.

The minimum requirements specified are intended to provide guidance regarding the degree of protection to be expected from the respective types of package, but are not intended to inhibit the development of improved methods giving equal or superior protection.

Should any doubts arise as to the correct materials to use for packing the coils or the manufacture of the platforms and strapping, consultation shall take place between shipper and purchaser of the tinplate.

SECTION ONE : TINPLATE AND BLACKPLATE IN CUT LENGTHS

2 TYPE A PACKAGE

The minimum protection to be provided (see figure 1) shall comprise the following :

- 1 Water-repellent paper or fibre board wrap.
- 2 Edge protective angles.
- 3 Two lengthwise and two crosswise flat band or wire ties.
- 4 Two or three runners to provide adequate support for the package.

NOTE — For platform details see figure 3.

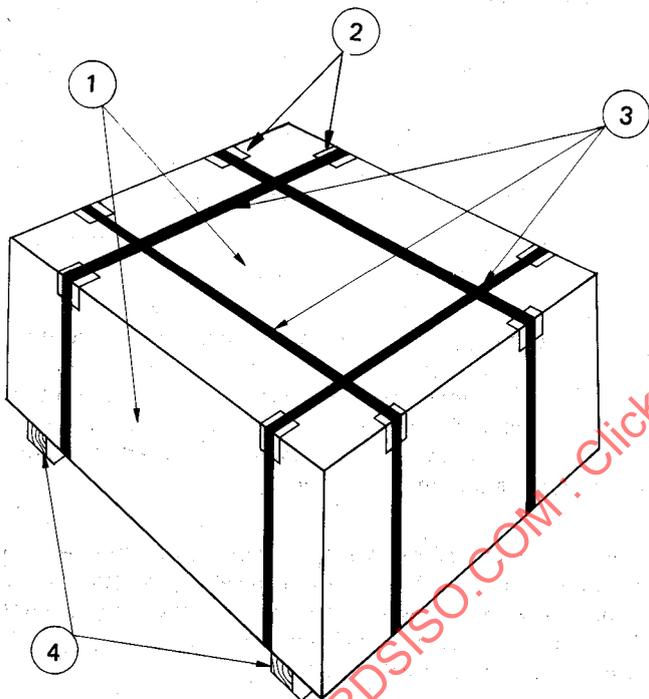


FIGURE 1 — Tinplate and blackplate cut lengths — Type A package

3 TYPE B PACKAGE

The minimum protection to be provided (see figure 2) shall comprise the following :

- 1 Water-repellent sheet on platform.
- 2 Water-repellent paper wrap.
- 3 Edge protective angles.
- 4 Adequate lengthwise, crosswise or perimeter flat band or wire ties.
- 5 Sheet metal to cover the four sides and the top lid.
- 6 Two lengthwise and two crosswise flat band or wire ties.
- 7 Two or three runners to provide adequate support for the package.

NOTE — For platform details see figure 3.

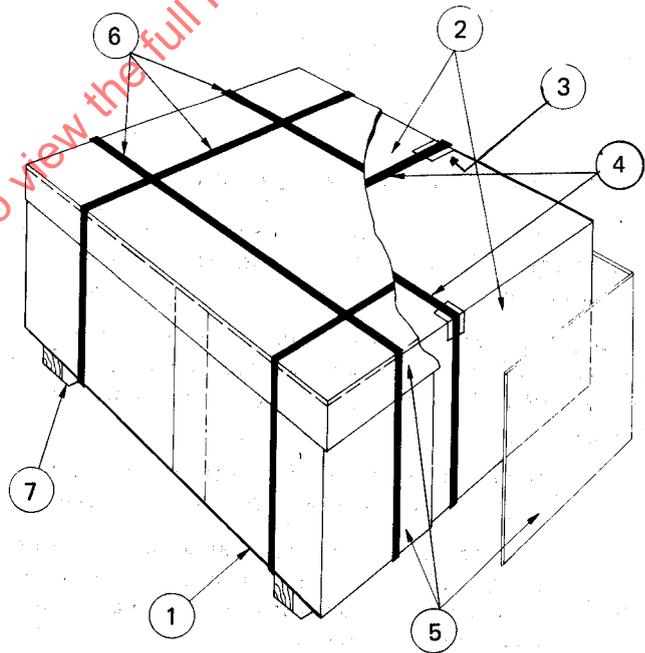
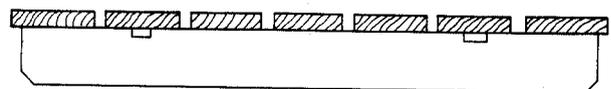
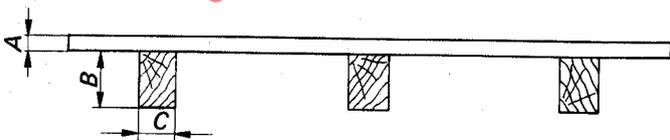


FIGURE 2 — Tinplate and blackplate cut lengths — Type B package



The platform shall be of timber of suitable hardness. Dimensions : A = 17 mm (11/16 in) minimum  
 B<sup>1</sup>) = 50 to 100 mm (2 to 4 in)  
 C<sup>2</sup>) = 40 mm (1 5/8 in) minimum

- 1) With increasing mass of bulk packages, a greater depth of runner may be required to accommodate the heavier lifting equipment.
- 2) The depth-to-width ratio of the runner should be such as to ensure adequate stability of the runner.

FIGURE 3 — Tinplate and blackplate cut lengths — Platform details for type A and B packages

SECTION TWO : TINPLATE AND BLACKPLATE IN COILS

4 TYPE A PACKAGE

The minimum protection to be provided (see figure 4) shall comprise the following :

- 1 Water-repellent disc or sheet on platform.
- 2 Complete wrapping of water-repellent paper around coil.
- 3 Two flat band diametrical ties over coil and around platform.

NOTE — For platform details see figure 6.

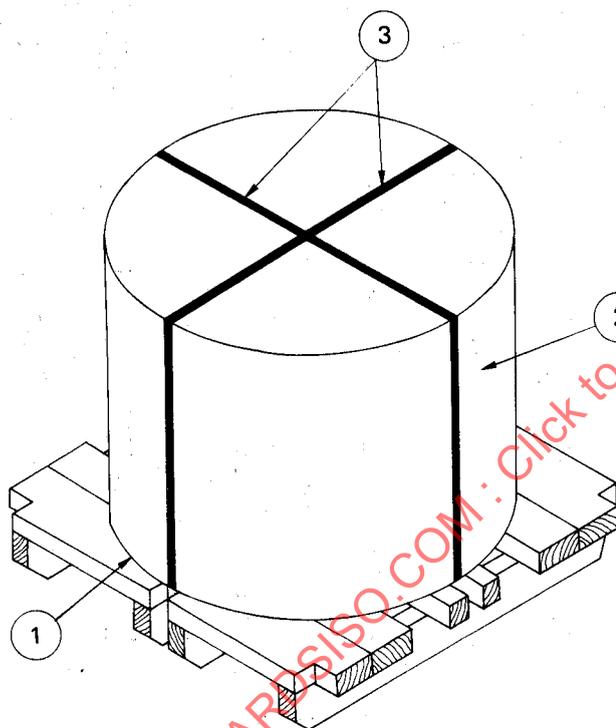


FIGURE 4 — Tinplate and blackplate coils — Type A package

5 TYPE B PACKAGE

The minimum protection to be provided (see figure 5) shall comprise the following :

- 1 Water-repellent board or paper discs or sheets placed next to coil (top and bottom).
- 2 Water-repellent paper wrapped around coil and folded over the top paper disc.
- 3 Complete outside cylindrical wrap of fibre board or steel.
- 4 Edge protective angle.
- 5 If a metal cap is used, two flat band ties securing coil to platform.
- 6 At least one circumferential flat band tie (over sheet metal cap if employed).
- 7 Wooden or sheet metal lid (if wooden, of a dimension greater than the coil diameter; if sheet metal, the cap shall extend 100 mm (4 in) down the side of the coil).
- 8 If a wooden lid is employed, two flat band diametrical ties over lid and around platforms.

NOTE — For platform details see figure 6.

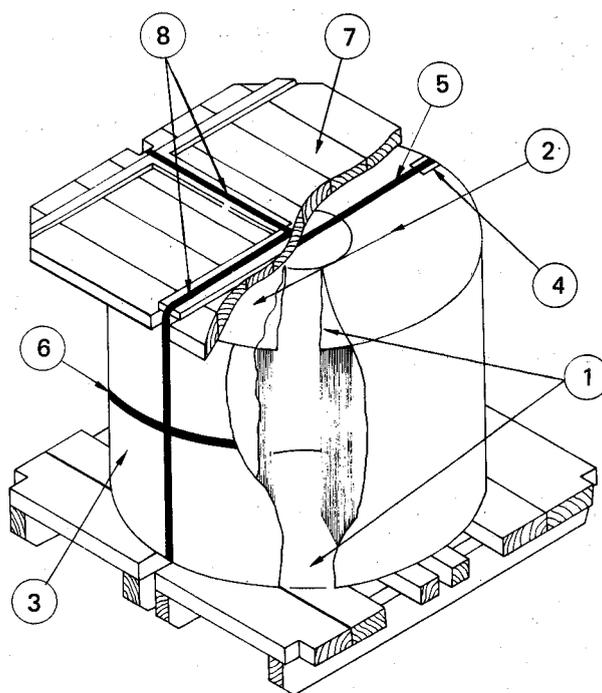
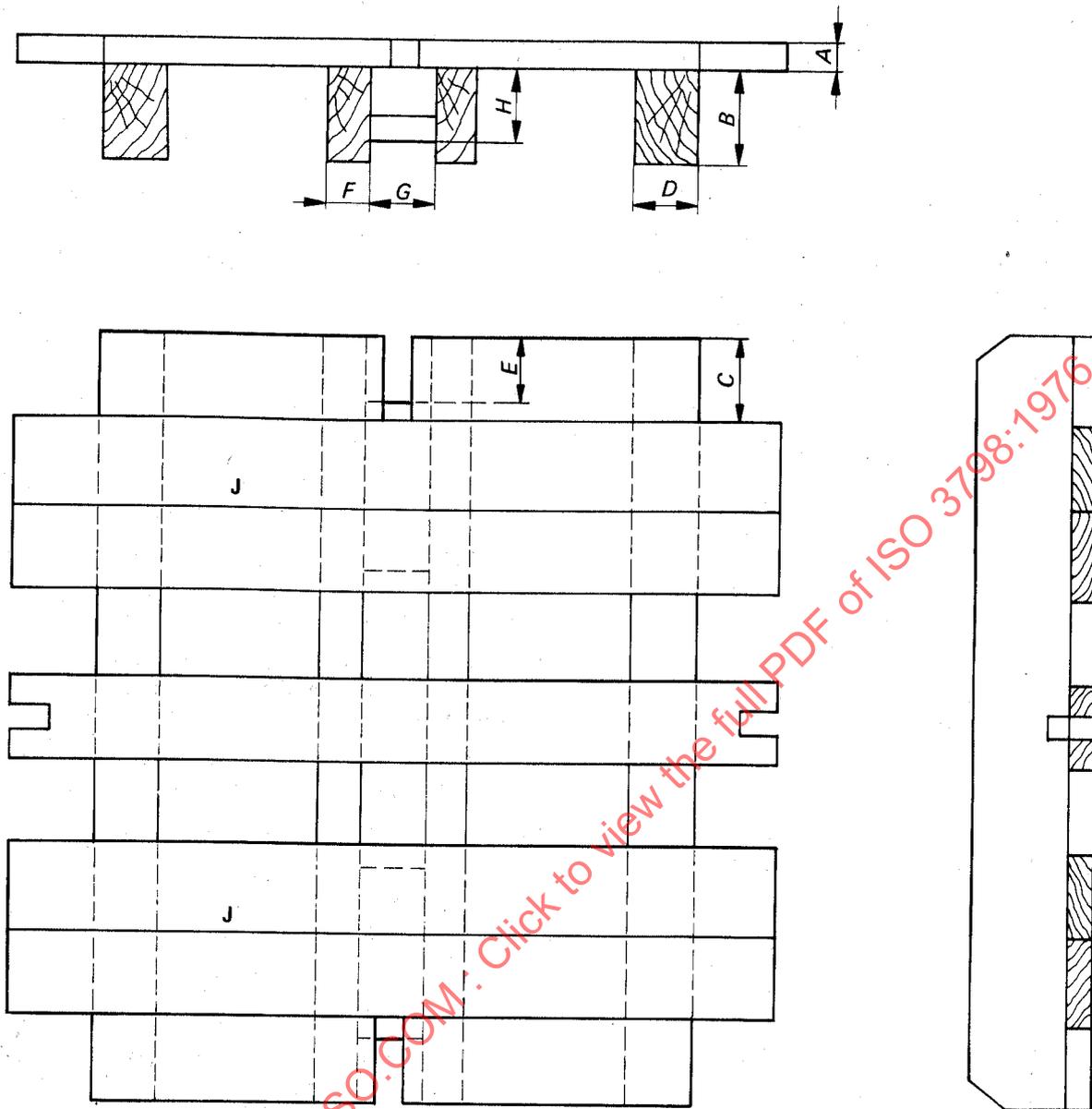


FIGURE 5 — Tinplate and blackplate coils — Type B package



Dimensions : A = 40 mm (1 1/2 in) minimum  
 B<sup>1)</sup> = 100 to 150 mm (4 to 6 in)  
 C = Width of outer board  
 D = 90 mm (3 1/2 in) minimum  
 E = 100 mm (4 in) maximum

F = 25 mm (1 in) minimum  
 G = 50 mm (2 in) minimum  
 H = 75 to 125 mm (3 to 5 in)  
 J<sup>2)</sup> = Boards

- 1) A runner depth greater than 150 mm (6 in) may be required to accommodate certain lifting tackle, for example wire slings.
- 2) Spacings between boards shall be in accordance with individual requirements.
- 3) Overall platform dimensions shall be greater than the coil diameter.
- 4) For coils greater than 1 300 mm (52 in) diameter the platform shall have at least three runners.
- 5) The depth-to-width ratio of the runner shall be such as to ensure adequate stability of the runner.
- 6) In some cases other designs of central runners are used and in these cases dimensions F, G and H do not apply.
- 7) Runners shall provide adequate support for the package.
- 8) When provision is required for wire rope slings, the platform construction may be suitably modified to ensure safe loading and unloading.

FIGURE 6 — Tinplate and blackplate coils — Platform details for type A and B packages