

JIS

JAPANESE INDUSTRIAL STANDARD

Cold roll box pallets for delivery

JIS Z 0614—1991

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

J I S

Cold roll box pallets for delivery

Z 0614-1991

1. Scope

This Japanese Industrial Standard specifies cold roll box pallets with casters for delivery of foods requiring temperature control and the like (hereafter referred to as the "pallets").

Remarks 1. Applicable Standards to this Standard are shown in the following:

JIS B 8923 Industrial Castors

JIS C 1102 Electrical Indicating Instruments

JIS D 1701 Performance Test Method for Bodies of Insulated or Refrigerated Vehicles

JIS Z 0612 Testing Methods of Box Pallets for Through Transit

2. In this Standard the units and numerical values shown in { } are in accordance with traditional units and, appended for informative reference.

2. Definitions

For the purposes of this Standard the following definition applies.

maximum load mass The maximum mass capable of being loaded on the pallet.

3. Classes and symbols

Classes and symbols of pallets shall be divided according to the cold-insulating performance and, as given in Table 1.

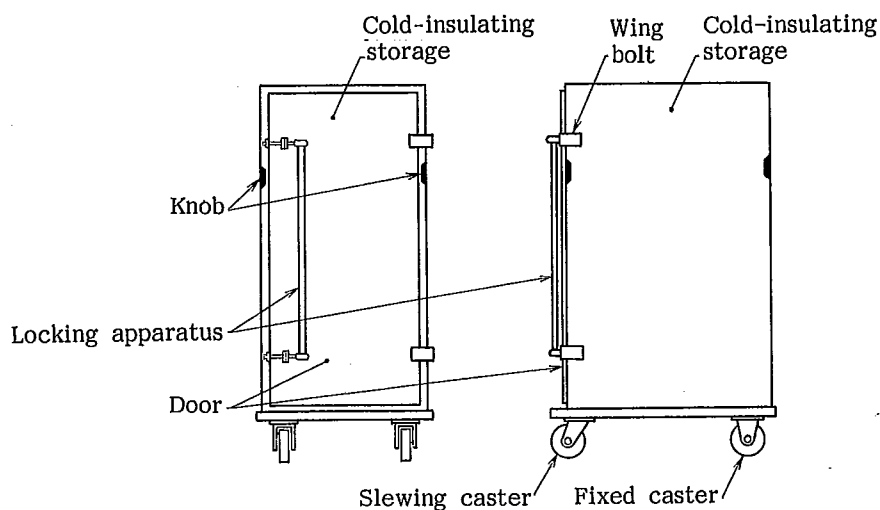
Table 1. Classes and symbols

Class	Symbol	Main uses
Class 1	CRB-1	Mainly for keeping the product temperature at -18°C or under.
Class 2	CRB-2	Mainly for keeping the product temperature in the range of -2 to +10°C.

4. Shape and name of each part

The shape and name of each part of the pallet shall be as shown in Fig. 1.

Fig. 1. Name of each part



5. Performance

5.1 Cold-insulating property The cold-insulating property of pallet, when tested according to the specification of 8.3, shall comply with Table 2.

Table 2. Cold-insulating performance

Class	When the central temperature of heat insulating wall is 10°C, the overall heat transfer coefficient		
	(Upper step)	W/m ² °C	{kcal/m ² h°C}
Class 1	Less than 0.46		
	Less than 1.65		{Less than 0.39}
Class 2	0.46 or over up to and incl. 0.99		
	1.65 or over up to and incl. 3.50		{0.39 or over up to and incl. 0.84}

5.2 Airtightness The airtightness of pallet, when tested according to 8.4, shall be not more than 200 %/h.

5.3 Starting property The starting property of pallet, when tested according to 8.5, shall be not more than 0.05 in starting resistance coefficient.

5.4 Maximum load mass The maximum load mass of pallet shall be 250 kg.

5.5 Strength The strength of pallet, when subjected to the test of 4.1 (box-pallet downward load test) and 4.2 (box-pallet horizontal load test) specified in JIS Z 0612, shall be free from deflection harmful to use, harmful residual deflection, and abnormalities on each part.

5.6 Overturning safety As to the safety against overturning of pallet, under no-load condition it shall not overturn at inclination angle of 14 degrees of floor surface in any direction.

6. Structure

The structure of pallet shall be as follows:

- (1) The cold insulating storage of pallet is to be the following structure:
 - (a) The inside surface of cold-insulating storage is to be such structure that cold air can circulate easily.
 - (b) The cold-insulating storage maintains the strength and cold-insulating performance endurable to repeated use, and is to be taken into consideration sufficiently selecting to water proofness and corrosion proofness.
 - (c) The cold-insulating storage is to be of such structure that it is capable of preventing leakage of cold air and of protecting the contents from the outside.
 - (d) The cold-insulating storage is to be of such structure that the washing with water is easy and the cold-insulating performance is not lowered due to water washing.
 - (e) The packing of the door is to be of such structure that it is exchangeable easily.
- (2) The pallet is to be of such rigid structure that it is capable of enduring repeated use, provided with the door having lock apparatus to prevent opening during distribution, and is easy in inserting-discharging of foods, transport and unloading.
- (3) The knob, wing bolt and lock apparatus are to be installed in inside of outer dimension.
- (4) Casters to be used for a pallet are to be those specified in JIS B 8923, and at least two pieces having a stopper are to be used.
- (5) In order to prevent damage due to contact, vibration, crush, etc. during unloading of pallet and distribution, the body and door must have buffers.
- (6) The pallet is to be free from dangerous protrusion, sharp angles and other defective portions in safety for handling work.

7. Dimensions

Dimensions of pallet shall be 850 mm or less in length, 760 mm or less in width, and 1750 mm or less in height according to Fig. 2.