Flat pallets for materials handling

This Australian Standard was prepared by Committee PK/3, Pallets. It was approved on behalf of the Council of Standards Australia on 12 August 1992 and published on 15 February 1993.

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Australian Chamber of Commerce and Industry

Australian Chamber of Shipping

Australian Institute of Packaging

Australian National Maritime Association

Australian Road Transport Federation

CSIRO, Division of Building, Construction & Engineering

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### Australian Standard®

## Flat pallets for materials handling

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AS E41—1966 revised and redesignated
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#### **PREFACE**

This Standard was prepared by the Standards Australia Committee on Pallets under the supervision of the Multitechnics Standards Policy Board to supersede AS 1899—1976, Flat pallets for materials handling (1100 mm × 1100 mm suitable for use in ISO Series 1 freight containers) and AS 2068—1977, Flat pallets for materials handling (1165 mm × 1165 mm general purpose, not intended for use in ISO Series 1 freight containers).

The general-purpose Australian pallet, nominally  $1165 \text{ mm} \times 1165 \text{ mm}$ , continues to be based on the  $46 \text{ inch} \times 46 \text{ inch}$  pallet, introduced into Australian industry in 1946 and subsequently specified in AS E41—1965. The introduction of the metric system and the ISO Series 1 freight containers necessitated the issue of new Australian Standards, AS 1899—1976 and AS 2068—1977. Basically the two standard pallets were intended to ultimately be the same in all respects, other than in their overall dimensions.

In preparing this edition, the Committee were of the opinion that the similarity of the two standard pallets was such that the requirements for them should now be published in one Australian Standard embracing:

- (a)  $1165 \text{ mm} \times 1165 \text{ mm}$  general purpose flat pallets for materials handling, not intended for use in ISO Series 1 freight containers.
- (b) 1100 mm × 1100 mm flat pallets for materials handling for use in ISO Series 1 freight containers.

Although timber is the material most commonly used for pallets, this Standard has been drafted on a performance basis to allow for the use of other materials of construction, e.g. metals, plastics and composites.

Cognizance was taken of the International Standard, ISO 8611, General-purpose flat pallets for through transit of goods—Test methods in the preparation of this Standard.

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#### STANDARDS AUSTRALIA

# Australian Standard Flat pallets for materials handling

1 SCOPE This Standard specifies dimensional and performance requirements of flat pallets for materials handling, the pallets being of nominal sizes  $1165 \text{ mm} \times 1165 \text{ mm}$  and  $1100 \text{ mm} \times 1100 \text{ mm}$ , and having a load capacity of 2 t during handling operations (e.g. when in slings, when on fork lifts, and during load assembly) or where used for storage in a drive-through system of pallet racking. The Standard applies to pallets as manufactured.

#### NOTES:

- 1 For long-term storage on pallets, lesser load capacities may apply, except in 'block stacking' storage situations.
- 2 Although timber is the material most commonly used for pallets, this Standard has been prepared on a performance basis to allow for the use of other materials.
- 3 Appendix A provides examples of typical two-way timber pallets that have been designed so as to enable their compliance with the requirements of this Standard.
- 2 REFERENCED DOCUMENT The following document is referred to in this Standard:

AS

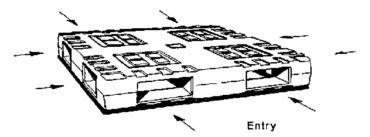
- 2582 Complete, filled transport packages—Methods of test
- 2582.5 Part 5: Horizontal impact tests (inclined plane test, pendulum test)
- **3 DEFINITIONS** For the purpose of this Standard, the definitions below apply
- **3.1 Pallet**—portable load-carrying platform usually having two interconnected decks spaced apart so as to permit the entry of lifting equipment, such as fork arms or tines, and used as a base for assembling, storing, stacking, handling or transporting goods as a single unit load.

### 3.2 Pallet types

- 3.2.1 Captive pallet—pallet designed for reuse within the confines of a single enterprise or system.
- **3.2.2** Disposable pallet—pallet intended to be discarded after a single shipment or a single cycle of

NOTE: A disposable pallet is also known as an expendable, non-returnable, one-way or single-trip pallet.

3.2.3 Four-way pallet—pallet designed to permit the entry of times or arms from four directions.



FOUR-WAY PALLET

- **3.2.4** *Non-captive pallet*—pallet used in unrestricted operations which extend through one or more enterprises (private, corporate or military) and may include common carrier services and pallet exchange pools.
- **3.2.5** *Re-usable pallet*—pallet intended for multitrip use.
- **3.2.6** Standard pallet—pallet complying with the requirements of this Standard.
- **3.2.7** *Two-way pallet*—pallet designed to permit the entry of tines or arms from two opposite directions only.

#### 3.3 Dimensions concepts

**3.3.1** *Depth*—dimension of the side of the pallet parallel to the principal direction of entry for tines or arms.

NOTE: This dimension is sometimes referred to as the 'length of the pallet'.

- **3.3.2** *Height*—overall vertical dimension of the pallet.
- **3.3.3** Width—dimension of the side of the pallet transverse to the principal direction of entry of tines or arms.



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