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oSIST prEN ISO 445:2026
01-maj-2026

Palete za ravnanje z materiali - Slovar (ISO/DIS 445:2026)

Pallets for materials handling - Vocabulary (ISO/DIS 445:2026)

Paletten für den Materialtransport - Begriffe (ISO/DIS 445:2026)

Palettes pour la manutention et le transport des marchandises - Vocabulaire (ISO/DIS 445:2026)

Ta slovenski standard je istoveten z: prEN ISO 445

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ICS:

01.040.55	Pakiranje in distribucija blaga (Slovarji)	Packaging and distribution of goods (Vocabularies)
55.180.20	Večnamenske palete	General purpose pallets

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DRAFT International Standard

Pallets for materials handling — Vocabulary

*Palettes pour la manutention et le transport des marchandises —
Vocabulaire*

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 51, *Pallets for unit load method of materials handling*.

This *fifth* edition cancels and replaces the *fourth* edition (ISO 445:2013), which has been technically revised.

The main changes compared with the previous edition are as follows:

- [clause 2](#) has been added, and all terms have been consolidated into [Clause 3](#);
- several new terms have been introduced, including wooden pallet, plastic pallet, metal pallet, paper-based pallet, composite pallet, wheeled pallet, modular plastic pallet, anti-spill plastic pallet, moulded pallet, shelf, castor, smart pallet;
- the terms of repaired pallet, reassembled pallet have been revised;
- the terms previously contained in Annex A (unit load handling) and Annex B (slipsheets) have been relocated to [Clause 3.10](#) and [3.8](#);
- editorial corrections have been made.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Pallets for materials handling — Vocabulary

1 Scope

This document defines terms in the field of pallets for unit load methods of materials handling.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4046-4:2016, *Paper, board, pulps and related terms — Vocabulary — Part 4: Paper and board grades and converted products*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 Terms relating to general

3.1.1

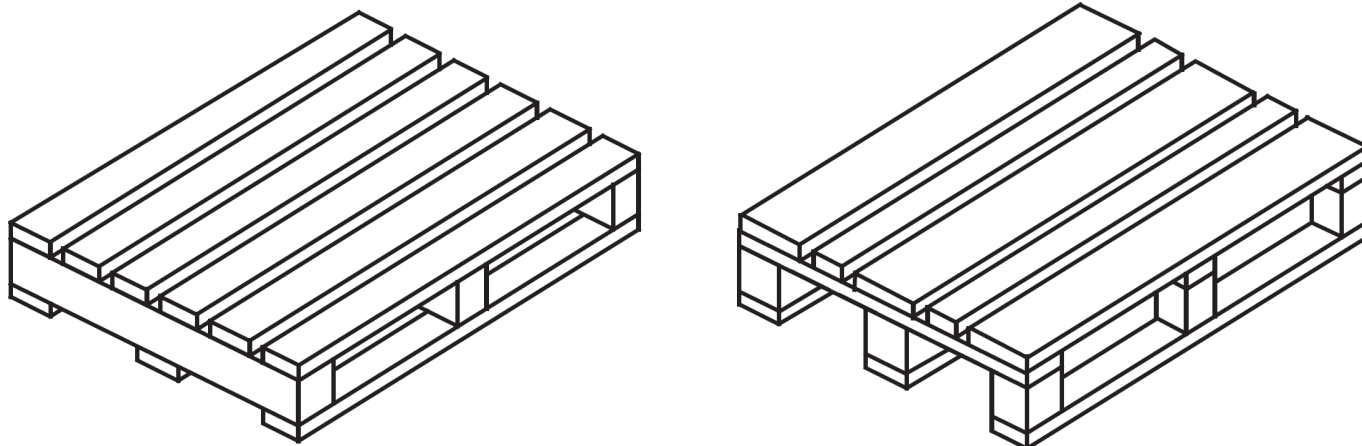
pallet

rigid horizontal platform of minimum height, compatible with handling by pallet trucks and/or forklift trucks and other appropriate handling equipment, used as a base for assembling, loading, storing, handling, stacking, transporting, or displaying goods and loads

Note 1 to entry: See [Figure 1](#).

Note 2 to entry: The pallet may be constructed with, or fitted with, a superstructure.

Note 3 to entry: Pallet could be used as a part of transport packaging.



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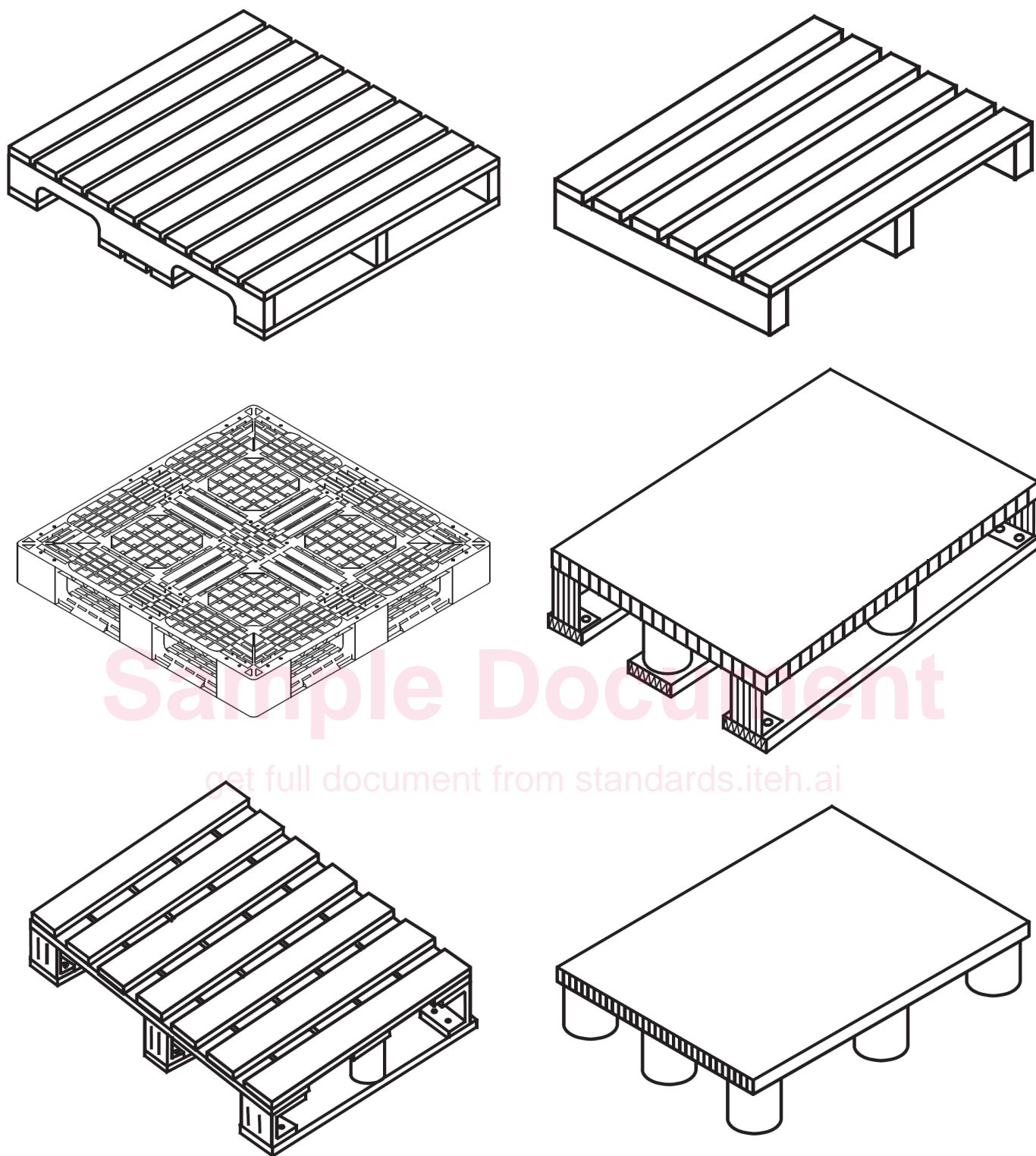


Figure 1 — Examples of pallets

3.1.2

wooden pallet

pallet (3.1.1) constructed with wood or wood-based components or a combination of both

3.1.3

plastic pallet

pallet (3.1.1) manufactured from plastic (polymer) materials or plastic (polymer)-based components or combination of both

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3.1.4

metal pallet

pallet (3.1.1) constructed with steel, aluminum or other metallic materials or components

3.1.5

paper-based pallet

pallet (3.1.1) constructed with paper or paper-based components or a combination of both

Note 1 to entry: Common types include corrugated paper-based pallets and honeycomb paper-based pallets, etc

3.1.6

composite pallet

pallet (3.1.1) manufactured from different materials like glass, wood or plastic, including usually polymer materials and polymer-based components or combination of both.

EXAMPLE A pallet made from mixture of two or more different materials such as wood, wooden-based, plastic, glass, etc.

3.1.7

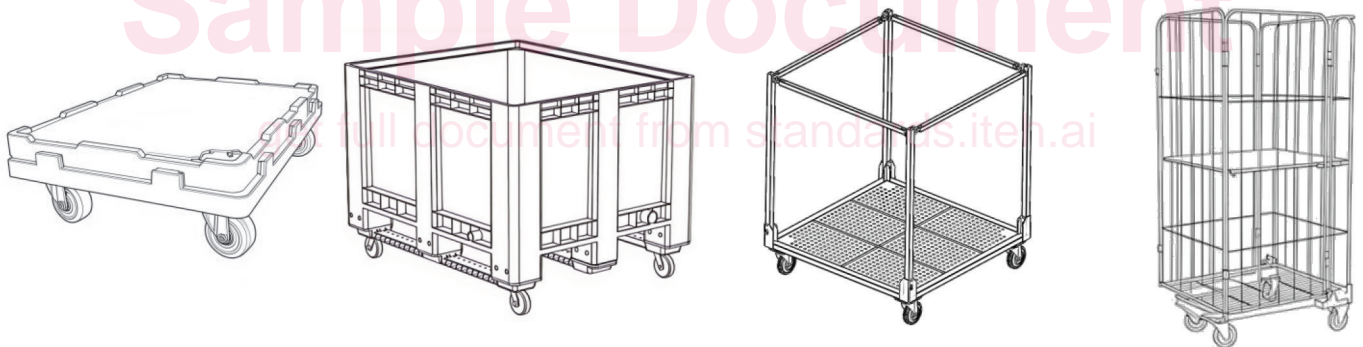
wheeled pallet

pallet (3.1.1) equipped with *castors* (3.5.9.4) on the bottom

Note 1 to entry: See [Figure 2](#).

Note 2 to entry: Common wheeled pallets are available as wheeled flat pallets [see [Figure 2a](#)] and wheeled pallets with superstructure [see [Figure 2b](#)].

Note 3 to entry: Common wheeled pallets with superstructure include box-type, post-type, and cage-type designs. The cage-type wheeled pallet is also known as either a roll container or roll box pallet.



a) wheeled flat pallets

b) wheeled pallets with superstructure

Figure 2 — Wheeled pallet

3.1.8

nominal load

R

lowest safe load value for the specified support conditions, independent of the type of load (excluding concentrated loads)

Note 1 to entry: “Specified support conditions” refers to the range of conditions of use in 7.1 of ISO 8611-2:2025.

Note 2 to entry: Nominal load does not represent an actual payload on a pallet in use. The nominal load is used for comparing the performance of different pallets.

3.1.9

concentrated load

load concentrated over an area of less than 50 % of the pallet *top deck* (3.5.1.2)

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3.1.10**uniformly distributed unbonded load**

load spread evenly across the full surface of the pallet *top deck* (3.5.1.2) where the items are not interlocked, bound or connected

3.1.11**uniformly distributed bonded load**

load spread evenly across the full surface of the pallet *top deck* (3.5.1.2), where the pattern of each single layer changes, so that the packages are interlocked

Note 1 to entry: See [Figure 3](#).

Note 2 to entry: Sacks are an example of a bonded load.

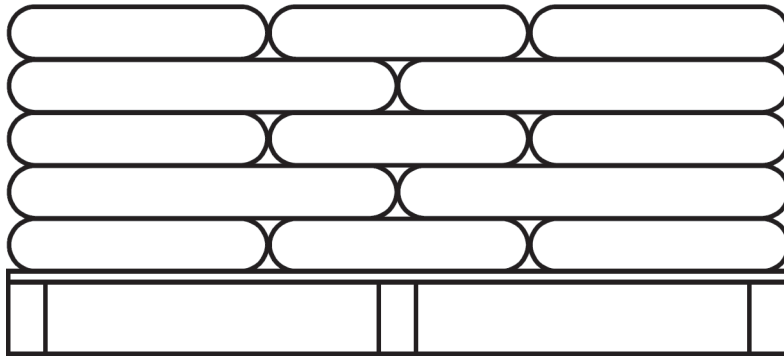


Figure 3 — Uniformly distributed bonded load

3.1.12**solid load**

single, compact, rigid, homogeneous load, supported by all the *blocks* (3.5.7.1) and/or *stringers (bearers)* (3.5.6.1) of the pallet

3.1.13**maximum working load**

greatest payload that a pallet may be permitted to carry in a specific loading and support condition

Note 1 to entry: This will vary according to the type, distribution, arrangement and means of stabilization of the load and the system of support. It may be above or below the nominal load (see ISO 8611-2[1]).

3.1.14**payload**

Q

load carried by the pallet in use

Note 1 to entry: This can be above, identical with or below the nominal load (see ISO 8611-2[1]).

3.1.15**safety factor**

ratio of the ultimate load to the nominal load

3.1.16**stiffness**

relative deformation of a pallet or component under load

Note 1 to entry: High stiffness means small displacement, deflection or deformation for a given load.

3.1.17**test load**

P

load applicators, the load board or load box and the applied load itself

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3.1.18 ultimate load

U

load at which compression, displacement or deflection is no longer contained, resulting in the destruction of the specimen or breaking of one component, or when displacement, deformation or deflection becomes excessive

3.1.19 failure

condition in which the pallet, at a particular load, exceeds the deflection limits or breakage of a component occurs

3.2 Terms relating to flat pallets

3.2.1 flat pallet

pallet with a *top deck* (3.5.1.2) without a raised superstructure

3.2.2 single-deck pallet

flat pallet (3.2.1) where the lower bearing surface area is less than the percentage specified in ISO 6780^[Z]

Note 1 to entry: See [Figure 4](#).

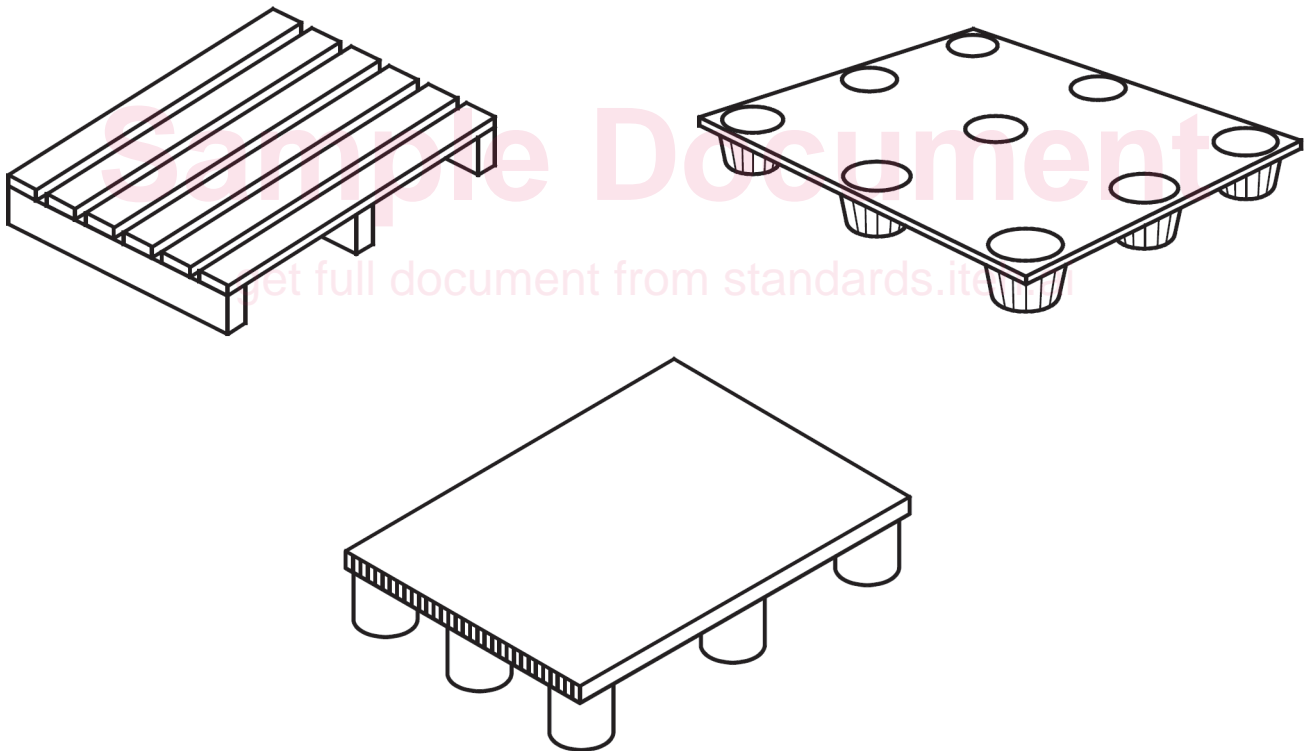


Figure 4 — Single-deck pallets

3.2.3 stillage

platform with two uprights or four feet and with *free entry* (3.5.3.3)

Note 1 to entry: See [Figure 5](#).

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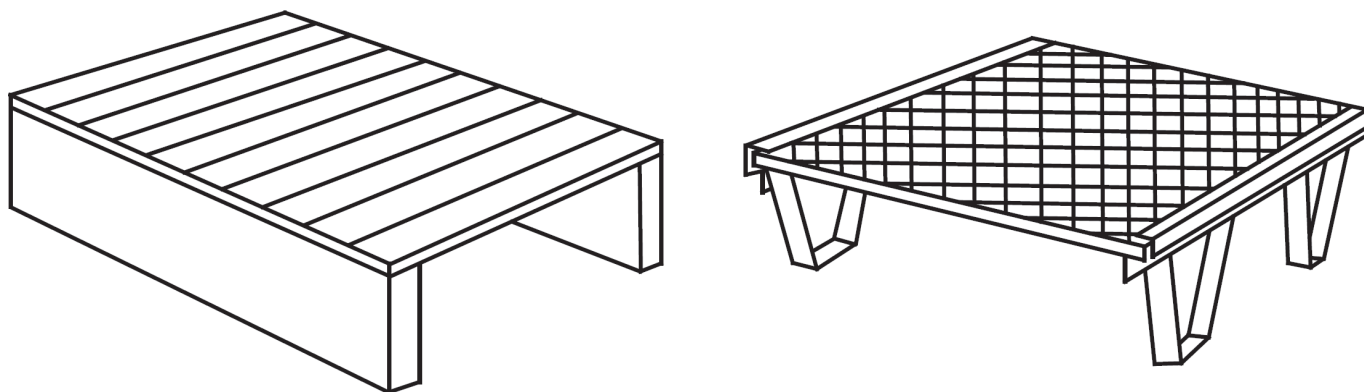


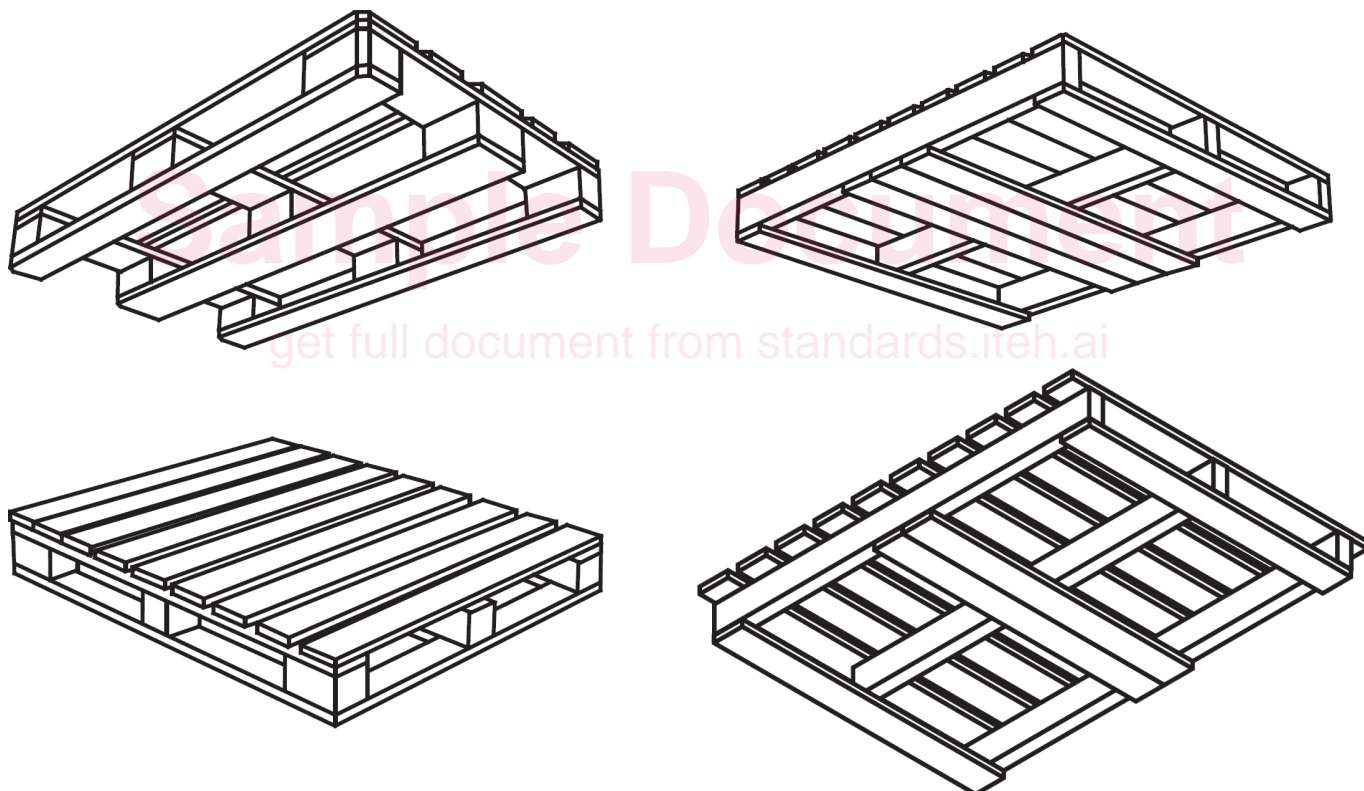
Figure 5 — Stillages

3.2.4

double-deck pallet

flat pallet (3.2.1) with a top deck (3.5.1.2) and a bottom deck (3.5.1.4)

Note 1 to entry: See [Figure 6](#).



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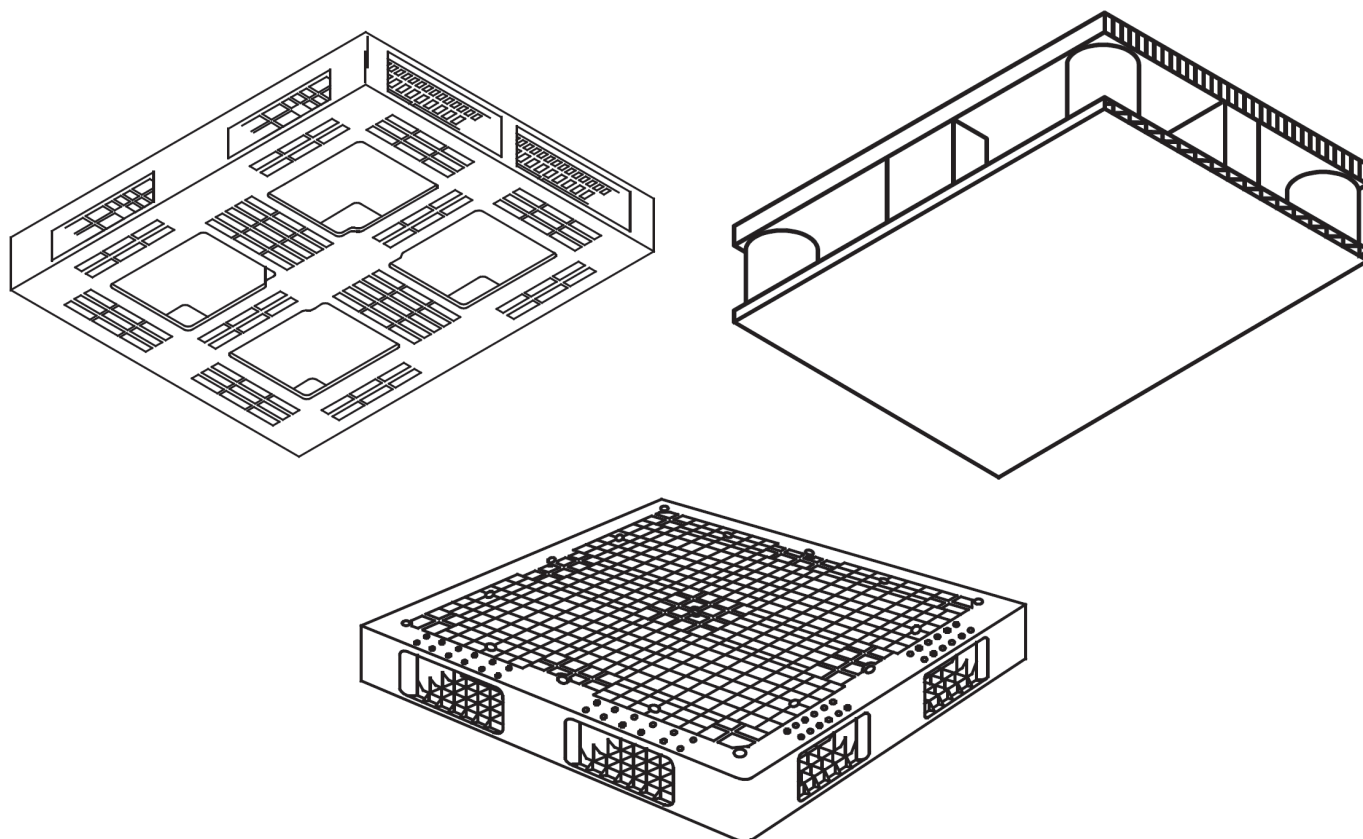


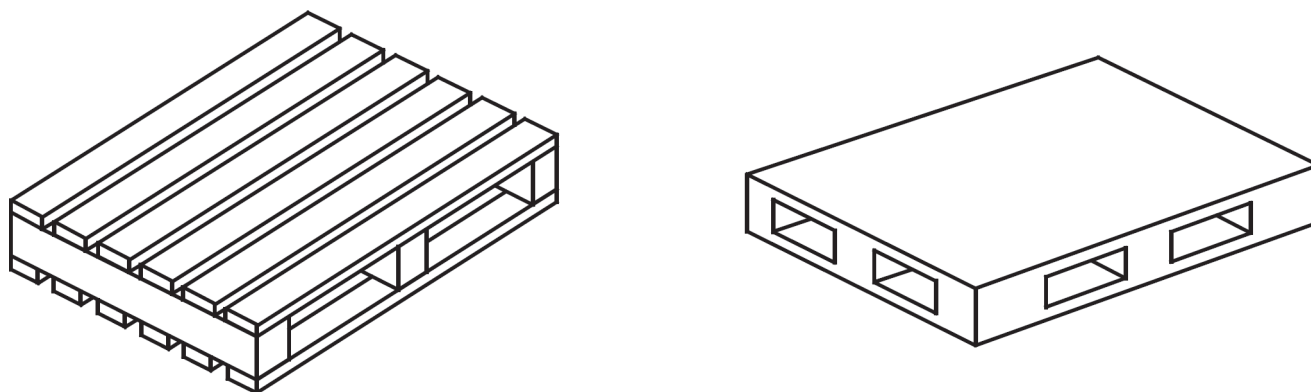
Figure 6 — Double-deck pallets

3.2.5

reversible pallet

double-deck pallet (3.2.4) with top and bottom decks, either of which can take the same payload

Note 1 to entry: See [Figure 7](#).



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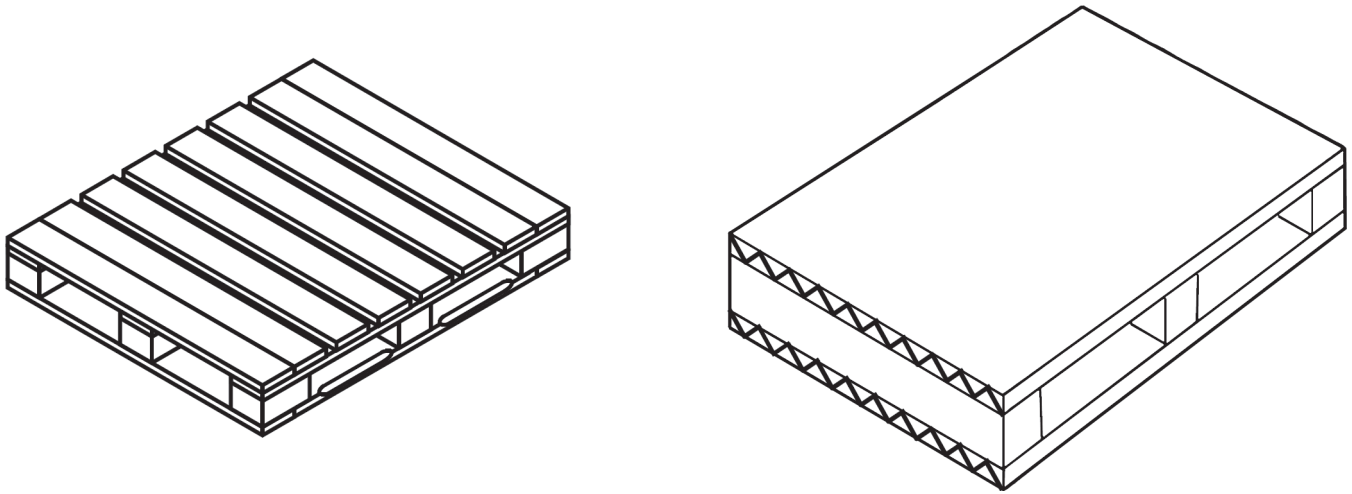


Figure 7 — Reversible pallets

3.2.6

non-reversible pallet

double-deck pallet (3.2.4) with one load-carrying surface

Note 1 to entry: See [Figure 8](#).

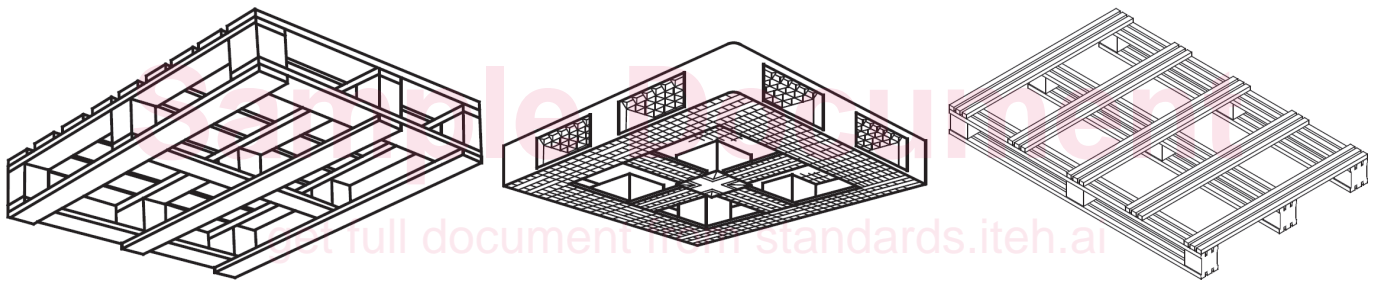


Figure 8 — Non-reversible pallets

3.2.7

two-way pallet**two-way entry pallet**

flat pallet (3.2.1) permitting the entry of the fork arms of forklift trucks and pallet trucks from two opposite directions only

Note 1 to entry: See [Figure 9](#).

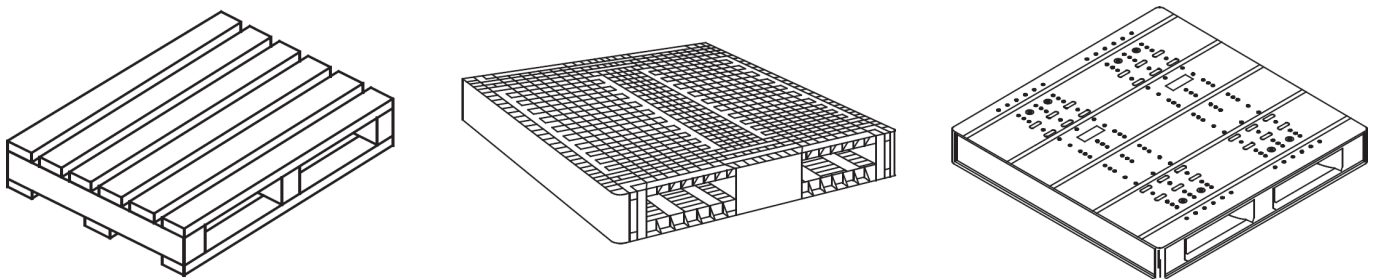


Figure 9 — Two-way pallets

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3.2.8

four-way pallet
four-way entry pallet

flat pallet (3.2.1) permitting the entry of the fork arms of forklift trucks and pallet trucks from all four directions

Note 1 to entry: See [Figure 10](#).

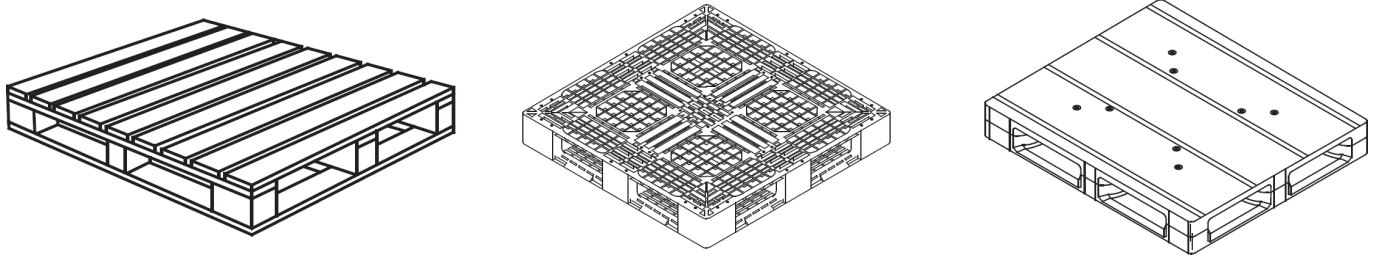


Figure 10 — Four-way pallets

3.2.9

partial four-way pallet
partial four-way entry pallet

flat pallet (3.2.1) permitting four-way entry of the fork arms of forklift trucks and two-way entry of the fork arms of pallet trucks

Note 1 to entry: See [Figure 11](#).

3.2.10

notched stringer pallet

flat pallet (3.2.1) with *stringers* (3.5.6.1) in each of which there are two *notches* (3.5.6.2) permitting entry of the fork arms of forklift trucks

Note 1 to entry: See [Figure 11](#).

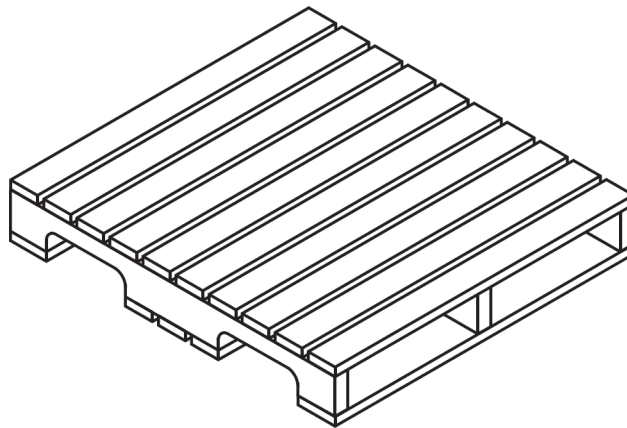


Figure 11 — Notched stringer pallet (example of a partial four-way pallet)

3.2.11

overlap pallet

flat pallet (3.2.1) with *bottom deck* (3.5.1.4) components layered one on top of another

Note 1 to entry: See [Figure 12](#).