

# SLOVENSKI STANDARD oSIST prEN 13698-2:2008 01-januar-2008

Specifikacija izdelovanja palet - 2. del: Specifikacija za konstrukcijo ravnih lesenih palet 1000 mm x 1200 mm

Pallet production specification - Part 2: Construction specification for 1000 mm x 1200 mm flat wooden pallets

Produktspezifikation für Paletten - Teil 2: Herstellung von 1 000 mm x 1 200 mm-Flachpaletten aus Holz

Spécification de produit pour les palettes - Partie 2 : Spécification de fabrication des palettes plates en bois, de dimensions 1000 mm x 1200 mm

Ta slovenski standard je istoveten z: prEN 13698-2

<u>ICS:</u>

55.180.20 X^ } æ{ ^} • \^A æ a a a a General purpose pallets

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#### **English Version**

## Pallet production specification - Part 2: Construction specification for 1000 mm x 1200 mm flat wooden pallets

Spécification de produit les palettes - Partie 2: Spécification de fabrication des palettes plates en bois, de dimensions 1000 mm x 1200 mm

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 261.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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### **Document Preview**

SIST EN 13698-2:2009

#### **Foreword**

This document (prEN 13698-2:2007) has been prepared by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 13698-2:2003.

Annexes A, C and D are normative. Annexes B and E are informative.

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#### Introduction

Tests on the perimeter base pallet and over 30 years of experience with the skid pallet in through transit of goods, have demonstrated that these designs of pallet comply with the relevant dimensional requirements and appropriate tests specified in certain standards. This certifies that the quality of the pallet is suitable for normal purposes as regards the physical stresses involved in distribution and handling.

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#### 1 Scope

This European Standard specifies the manufacturing characteristics of flat re-usable wooden 1000 mm  $\times$  1200 mm, double deck, non-reversible, 4-way entry, 9 block skid and perimeter base pallets suitable for transport, storage, handling or exchange use. It also gives some requirements for manufacture and marking and addresses the issue of safety.

#### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ENV 717-1, Wood-based panels – Determination of formaldehyde release – Part 1: Formaldehyde emission by the chamber method

EN 1087-1, Particleboard – Determination of moisture resistance – Part 1: Boil test.

EN 1310:1997, Round and sawn timber – Method of measurement of features

EN 12246:1999, Quality classification of timber used in pallets and packaging.

EN 13183-1, Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method

EN 13183-2, Moisture content of a piece of sawn timber - Part 2: Estimation by electrical resistance method

EN 13382, Flat pallets for material handling – Principal dimensions

EN ISO 445:1998, Pallets for materials handling - Vocabulary (ISO 445:1996).

prEN ISO 8611-1:2000, Pallets for materials handling - Part 1: Test methods for flat pallets (ISO/DIS 8611-1:2000).

ISO 3133, Wood – Determination of ultimate strength in static bending

#### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 445:1998 and the following apply.

#### 3.1

#### stacking

placing of pallets with unit loads, one upon the other, without recourse to intermediate shelves or racking

#### 3.2

#### nominal load

reference load capacity, in kilograms, assuming an uniformly distributed load

#### 3.3

#### safe working load

maximum load capacity, in kilograms, in a defined loading situation

#### 3.4

#### concentrated load

load concentrated over an area between 30 % and 85 % of the pallet deck

#### 3.5

#### uniformly distributed load

load spread evenly across the full surface of the pallet deck

#### prEN 13698-2:2007 (E)

#### 3.6

#### solid load

single, compact, rigid, homogeneous load, covering approximately the complete surface of the pallet

#### 4 Pallet types

#### 4.1 Type 1

Re-useable wooden flat pallet, double deck, non-reversible, 4-way entry, skid pallet.

#### 4.2 Type 2

Re-useable wooden flat pallet, double deck, non-reversible, 4-way entry, perimeter base pallet.

#### 5 Nominal and safe working loads

The nominal load of pallets conforming to this standard is to be established by tests conducted under the review of ISO 8611:1991. Annex E gives general information on safe working loads under different loading conditions.

#### 6 Construction

#### 6.1 Materials

#### 6.1.1 Timber

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#### 6.1.1.1 Timber species

Timber species are given in annex A.

#### 6.1.1.2 Timber quality grade

The timber quality grade shall conform to A.2.

n to A.2.

#### 6.1.1.3 Moisture content

Moisture content shall be determined in accordance with EN 13183-1 or EN 13183-2.

At the time of delivery the moisture content of the component parts of the pallets shall not exceed 22 %.

NOTE Dimensions at other moisture levels may be calculated using the correction factors given in annex B.

The reference moisture content shall be 20 %.

#### 6.1.1.4 Particle board

High density, moisture resistant particle board conforming to A.3 is permitted for blocks.

#### 6.1.1.5 Fasteners

Pallets shall be assembled with fasteners conforming to A.4.

#### 6.2 Design and manufacture

#### 6.2.1 Component parts

Component parts of the pallets shall be conform to Table 1 and Figure 1 or to Table 2 and Figure 2.

#### 6.2.1.1 Type 1: Skid pallet 1000 mm × 1200 mm

Component parts of the skid pallet 1000 mm  $\times$  1200 mm shall conform to Table 1 and Figure 1.

Table 1 — Component parts for the skid pallet 1000 mm  $\times$  1200 mm

Part <sup>1)</sup>	Component 1)	Number of component <sup>1)</sup>	Dimensions at 20% moisture content mm			
			Length	Width <sup>2)</sup>	Thickness <sup>2)</sup>	
1	top deck lead board	2	1200 ±3	145 +7 -3	22 <sub>0</sub> <sup>+2</sup>	
2	intermediate top deck board	4	1200 ±3	100 ± 3	22 +2 0	
3	central top deck board	1	1200 ±3	145 +7 -3	22 0+2	
4	stringer board	3	1000 ±3	145 +7 -3	<b>25</b> $_{0}^{+2}$	
5	bottom deck board	3	1200 ±3	145 +7 -3	22 0+2	
6	Block	9	145 +7	145 +7 -3	78 +1 -3	
7	Nail	127 eh	Standa	rds		
8	Nail (ht	tps <sup>27</sup> //st	andards it See A.4 i			
9	Nail or staples	36	ent Preview			

<sup>1)</sup> See Figure 1

<sup>2)</sup> See annex B

#### 6.2.1.2 Type 2: Perimeter base pallet 1000 mm $\times$ 1200 mm

Component parts of the perimeter base pallet shall conform to Table 2 and Figure 2.

Table 2 — Component parts of perimeter base pallet 1000 mm imes 1200 mm

Part <sup>1)</sup>	Component 1)	Number of components	nents	Dimensions at 20 % moisture content	re content
			Length	Width <sup>2)</sup>	Thickness <sup>2)</sup>
1	top deck lead and central top deck board	3	1200±3	120 ±3	<b>22</b> $_{0}^{+2}$
2	Intermediate top deck board	2	1200 ±3	120 ±3	<b>22</b> $_{0}^{+2}$
3	Intermediate top deck board	2	1200 ±3	100 ±3	<b>22</b> $_{0}^{+2}$
4	stringer board	3	1000 ±3	145 +5 -3	<b>22</b> $_{0}^{+2}$
5	bottom length deck board	зіТе	1000 ±3	120 ±3	<b>22</b> $_{0}^{+2}$
6	bottom width deck board	https://s	1000 ±3	100 ±3	<b>22</b> $_{0}^{+2}$
7	Block	9	145 <sup>+5</sup> <sub>-3</sub>	120 ±3	98 ±2
https:	square twisted or annular ring rolled nail	og/standards/sist/	<u>1 EN 13698-2:20</u> )80b3fdf-cefe-4d0	<u>09</u> 06-9447-a4c17cac	38e3/sist-en-13
9	square twisted or annular ring rolled nail	39		See A.4	
10	plain shank nail	36			

<sup>1)</sup> See Figure 2

#### 6.2.2 Boards and blocks

All boards and natural timber blocks shall be of one piece.

The outer surfaces of the top and bottom decks shall be unplanned.

The wood fibres of the outer skid blocks shall be parallel to the longitudinal axis of the pallet.

Blocks shall be of natural timber or particle board (see 6.1.1.4).

<sup>2)</sup> See annex B