

## **Pallet production specification - Part 1: Construction specification for 800 mm x 1200 mm flat wooden pallets**

Pallet production specification - Part 1: Construction  
specification for 800 mm x 1200 mm flat wooden  
pallets

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13698-1:2003 sisaldab Euroopa standardi EN 13698-1:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 14.08.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13698-1:2003 consists of the English text of the European standard EN 13698-1:2003.</p> <p>This document is endorsed on 14.08.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b></p> <p>This European Standard specifies the manufacturing characteristics of a flat reusable wooden 800 mm x 1200 mm, double deck, non-reversible, 4-way entry, 9 block pallet suitable for transport, storage, handling or exchange use. It also gives some requirements for manufacture and marking and addresses the issue of safety</p>	<p><b>Scope:</b></p> <p>This European Standard specifies the manufacturing characteristics of a flat reusable wooden 800 mm x 1200 mm, double deck, non-reversible, 4-way entry, 9 block pallet suitable for transport, storage, handling or exchange use. It also gives some requirements for manufacture and marking and addresses the issue of safety</p>
--	--

**ICS** 55.180.20

**Võtmesõnad:** characteristics, definition, definitions, dimensions, flat pallets, handling, loading, marking, materials, pallets, product specifications, production, specification, testing, timber pallet, wood

ICS 55.180.20

English version

Pallet production specification - Part 1: Construction  
specification for 800 mm x 1200 mm flat wooden pallets

Spécification de produit pour les palettes - Partie 1:  
Spécification de fabrication des palettes en bois, de  
dimensions 800 mm x 1200 mm

Produktspezifikation für Paletten - Teil 1: Herstellung von  
800 mm x 1200 mm Flachpaletten aus Holz

This European Standard was approved by CEN on 10 April 2003.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Contents

	page
Foreword.....	3
Introduction .....	4
1 <b>Scope</b> .....	5
2 <b>Normative references</b> .....	5
3 <b>Terms and definitions</b> .....	5
4 <b>Nominal and safe working loads</b> .....	6
5 <b>Construction</b> .....	6
6 <b>Inspections and marking</b> .....	10
<b>Annex A (normative) Materials</b> .....	11
<b>Annex B (informative) Wood shrinkage</b> .....	17
<b>Annex C (informative) Nail pattern</b> .....	18
<b>Annex D (normative) Joint separation test</b> .....	20
<b>Annex E (informative) Inspection (Quality control)</b> .....	22
<b>Annex F (normative) Preservatives</b> .....	25
<b>Annex G (informative) Safe working loads under different loading situations</b> .....	26
<b>Bibliography</b> .....	27

## Foreword

This document (EN 13698-1:2003) has been prepared by Technical Committee CEN /TC 261 "Packaging", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2004, and conflicting national standards shall be withdrawn at the latest by January 2004.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## Introduction

All general purpose re-usable pallets, irrespective of the material from which they are made, are required to conform to the dimensional requirements and performance criteria specified in the following standards:

EN 13382:2002	<i>Flat pallets for materials handling — Principal dimensions</i>
prEN ISO 8611-1	<i>Pallets for materials handling — Part 1: Test methods for flat pallets (ISO/DIS 8611-1:2000)</i>
prEN ISO/DIS 8611-2	<i>Pallets for materials handling - Flat pallets - Part 2: Performance requirements and selection of tests</i>
prEN ISO/DIS 8611-3	<i>Pallets for materials handling – Flat pallets - Part 3: Maximum working load</i>

Tests performed by various European railway companies, and over 30 years of experience in through transport of goods, have demonstrated that the design of pallet 'Europallet' conforms to the relevant dimensional requirements and appropriate tests specified in the above standards. This certifies that the quality of the pallet is suitable for normal purposes as regards the physical stresses involved in distribution and handling. Pallets in full conformity to this specification are therefore exempt from the load testing programs described in the standards relating to performance listed above.

This European Standard is largely based upon, but not identical to, UIC-Code 435-2:1994 *Standard of quality for a European flat pallet made of wood with four openings and measuring 800 mm × 1200 mm*.

## 1 Scope

This European Standard specifies the manufacturing characteristics of a flat re-usable wooden 800 mm × 1200 mm, double deck, non-reversible, 4-way entry, 9 block pallet 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, *Particleboards – 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 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)*

EN ISO 12777-3, *Methods of test for pallet joints – Part 3: Determination of strength of pallet joints (ISO 12777-3:2002).*

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

## 3 Terms and definitions

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

### 3.1

#### **stacking**

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

### 3.2

#### **nominal load**

reference load capacity, in kilograms, assuming a 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