
**Pallets for materials handling — Flat
pallets —**

**Part 1:
Test methods**

*Palettes pour la manutention — Palettes plates —
Partie 1: Méthodes d'essai*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8611-1 was prepared by Technical Committee ISO/TC 51, *Pallets for unit load method of materials handling*.

This first edition, together with ISO 8611-2 and ISO 8611-3, cancels and replaces ISO 8611:1991.

ISO 8611 consists of the following parts, under the general title *Pallets for materials handling — Flat pallets*:

- *Part 1: Test methods*
- *Part 2: Performance requirements and selection of tests* (Technical Specification)
- *Part 3: Maximum working load* (Technical Specification)

Introduction

The 1991 edition of ISO 8611 described a system of sequential testing that relied upon a pallet passing every test in a series. This meant that one pallet could be near to failure in one particular test where another pallet might be substantially over-designed. Using the (earlier) deflection criteria, both pallets were presented as equals in terms of safety factor. The notched stringer pallet was a good example of this where it was typically very stiff, but frequently near fracture point in the (old) bending test. The new, three-part version of ISO 8611 redresses this in failing every specimen in order to establish a definite safety factor. Stiffness is dealt with as a separate series of measurements conducted during testing.

Conducting the tests requires experience in testing (including the load) and also some expertise of the materials under test. This part of ISO 8611, in conjunction with ISO/TS 8611-2 and ISO/TS 8611-3, has been expressly designed to cover all pallet materials either when used alone or used as composites. A further change over ISO 8611:1991 is that all pallets for materials handling are now covered and not just high quality through-transit, exchange or pool pallets.

This part of ISO 8611 cannot be used to evaluate a pallet to normative ISO requirements without the additional application of ISO/TS 8611-2 and ISO/TS 8611-3.

This part of ISO 8611 was designed to be coupled with ISO/TR 10232:1989 *General-purpose flat pallets for through transit of goods — Design rating and maximum working load* and ISO/TR 10233:1989 *General-purpose flat pallets for through transit of goods — Performance requirements*.

The changing of the title and the scope of ISO 6780 from *General purpose flat pallets for through transit of goods — Principal dimensions and tolerances*, to a wider scope of *Flat pallets for intercontinental materials handling — Principal dimensions and tolerances*, makes it necessary to amend ISO 8611:1991 and the Technical Reports ISO/TR 10232 and ISO/TR 10233. The test methods, performance requirements and design rating and maximum working load should now include not only “general purpose pallets” but also all other pallets for materials handling.

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Pallets for materials handling — Flat pallets —

Part 1: Test methods

1 Scope

This part of ISO 8611 specifies test methods of existing and prototype flat pallets for materials handling (for all types of use).

NOTE Specific tests for determining load capacity do not replace the value of conducting field tests on specific pallet designs.

2 Normative references

The following referenced documents are indispensable for the application 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 445, *Pallets for materials handling — Vocabulary*

ISO 2244, *Packaging — Complete, filled transport packages and unit loads — Horizontal impact tests*

ISO/TS 8611-2:—¹⁾, *Pallets for materials handling — Flat pallets — Part 2: Performance requirements and selection of tests*

ISO 12777-1, *Methods of test for pallet joints — Part 1: Determination of bending resistance of pallet nails, other dowel-type fasteners and staples*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 445 (some of which are repeated below for convenience) and the following apply.

3.1

test load

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

1) To be published.