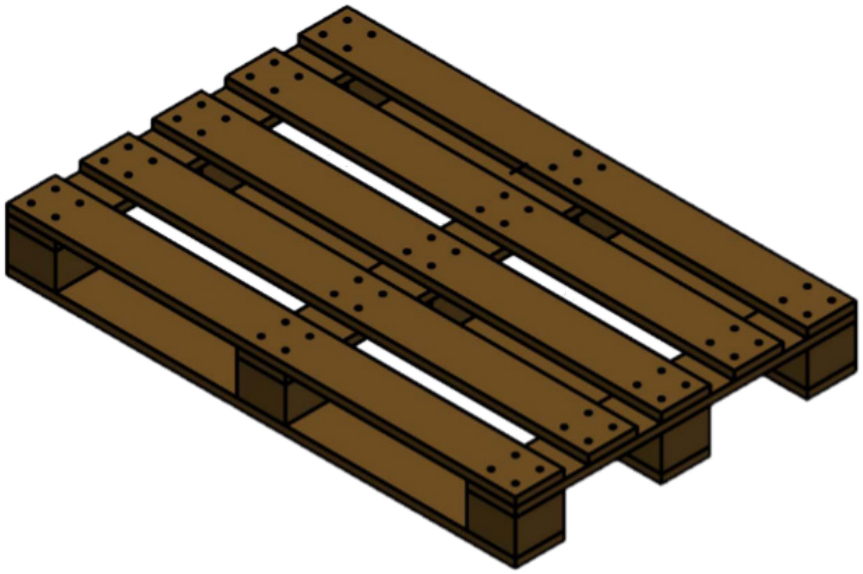
UNHCR
The UN Refugee Agency

Pallet Specifications
2026

Introduction

This document aims to ensure pallets used for Core Relief Items (CRIs) and similar items delivery worldwide adhere to industry standards for dimensions, load capacity, and material, which facilitates compatibility and interoperability across different country operations.

Additional requirements for packaging and labelling can be found on the technical specifications and/or specific purchase order.

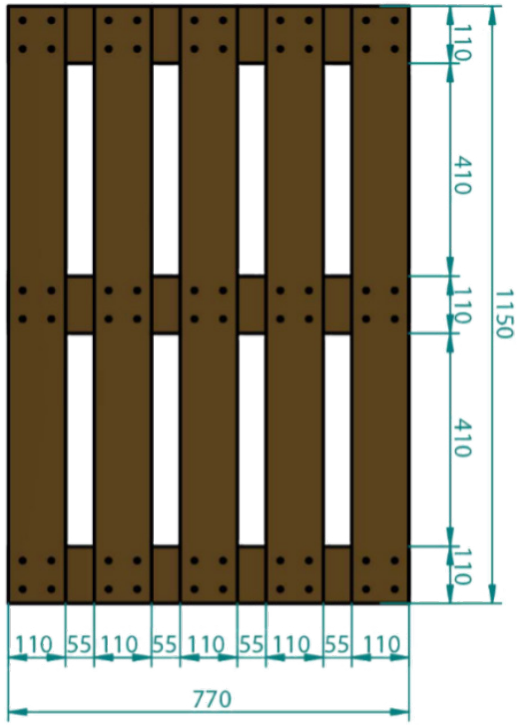


General Guidelines:

1. Packaging materials should be environmentally friendly which should be easy to recycle and/or made from materials manufactured using minimal impact on energy consumption.
2. Packaging shall be robust and durable to withstand handling and transportation under varying environmental conditions.
3. All pallets must comply with ISO 8611 standards to ensure durability, strength and performance under various load and handling conditions.
4. Appropriate cushioning and securing methods must be employed to prevent damage during transit.
5. Hazardous materials must be packaged and labeled in accordance with international regulations and UNHCR guidelines.
6. Packaging and palletization processes shall prioritize safety, efficiency, and ease of handling for UNHCR staff and partners

Instructions for pallets

The supplier shall ensure that the pallets are in good condition, and they are not dirty or damaged. In case the pallets do not comply with the following specifications, the Supplier, responsible for packing the items, shall replace or rework the pallets without additional cost to the Organization.



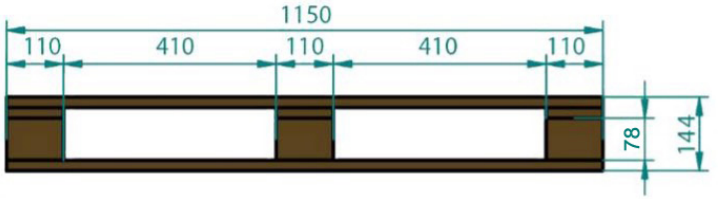
CRI (UNHCR) Pallets

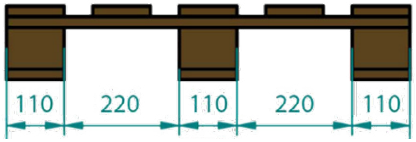
- **Dimensions** (L x W x H):
  1150 mm (+10 mm / -30 mm) x 770 mm (+/- 10 mm) x 144 mm (+/- 5 mm).
- **Weight**: 23 kg with a tolerance of +/- 5%
- **Type:** One-way pallet.
- **Pallet Treatment:**
  Must comply with ISPM 15.
  Pallets shall bear a burnt mark indicating compliance and ink mark is not acceptable.
- Acceptable standards are Grade A Stringer Pallets or 9 Block Pallets.

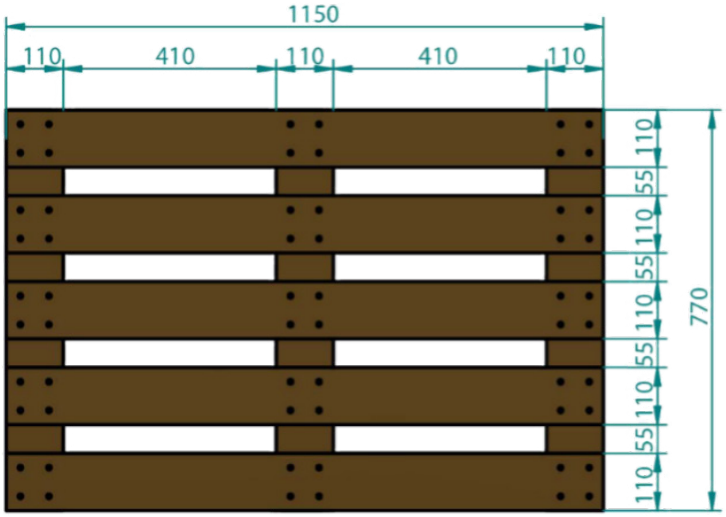
General requirements:

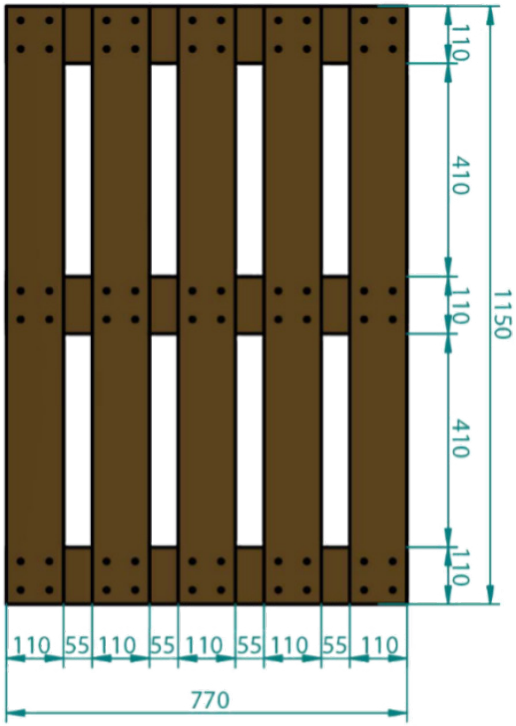
- **Material:** Dry lumber with a maximum moisture content of 20%.
- Pallet treatment certification required upon request.
- **Deck and Bottom Boards:** Solid wood, 22 mm thick with a tolerance of: width +10 / -10 mm, length: +5 / -10 mm.
- **Blocks:** Solid or pressed wood, 78 mm high (+/- 5 mm tolerance), dimensions as per provided graphic reference.
- **Load Bearing Capacity:**
  - Nominal Load: 750 kg (randomly distributed load).
  - Evenly Distributed Load: 1200 kg.
- **Stacking:** Minimum entry height from the floor: 97 mm (to allow for hand pallet jack/truck).
  Lower pallet must support an additional maximum load of 3000 kg when stacked on a flat, horizontal, rigid surface with even load distribution.
- The height limit on the loaded pallet should be maximum 1150mm unless it's specified differently in the PO.
- **Compatibility:** Must be compatible with pallet racking systems with a depth of 800 mm.
  Wooden planks should support the **load without flexing or bowing.**

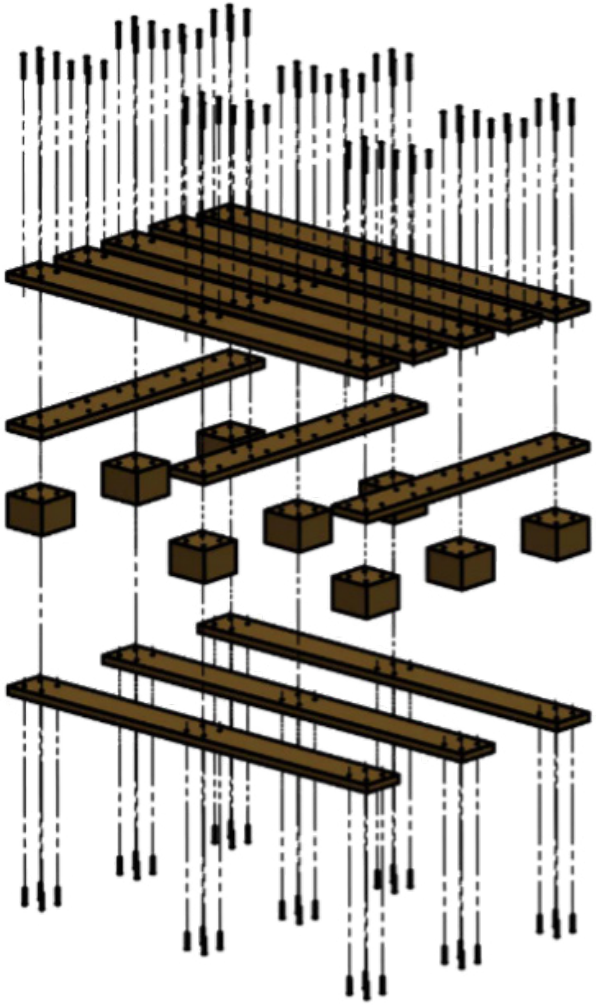
Graphic reference











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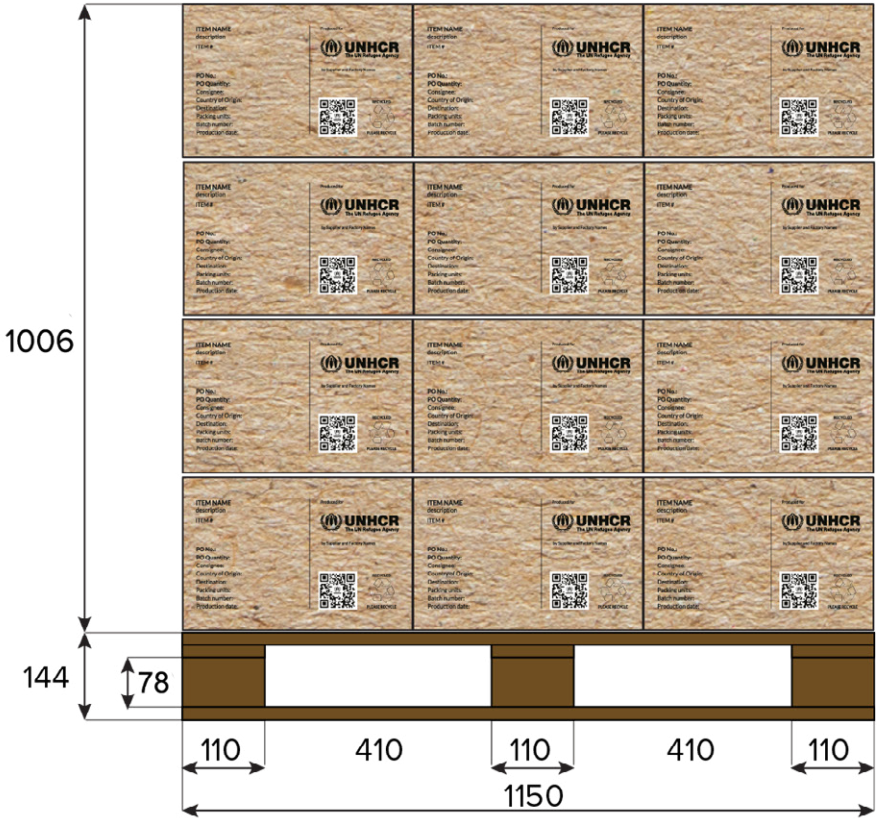


Pallet securing

Pallets must be secured to ensure the safe and stable transport of goods. Proper securing methods prevent shifting, damage, and contamination during handling, storage and shipping. Pallets shall be secured using one or more of the following methods:

- Anti-slip Paper
- Interleaving Paper
- Tilt Watch
- Corner Protectors: Recyclable corrugated fiberboard only.
- Strapping Band: Polypropylene only. Steel straps are not acceptable. Use at least 4 straps (2 on each side: short and long). The applied straps/belts on pallets should be properly tightened, loose strapping is unacceptable.
- Cover Film / Stretch Film: Use transparent stretch wrap, 20 micrometers (0.02 mm) thick and 450 mm wide. Choose water-tight material, preferably made of, or containing sustainable material, e.g., recycled plastic or reusable material (such as tarpaulins or other alternatives).
- Wrap must start from the top of the pallet and proceed upwards in an overlapping pattern.
- Do not cover pallet fork entry holes with stretch wrap.
- Loose ends are not acceptable.
- Pallet Warning Sign.

Stacking Requirements

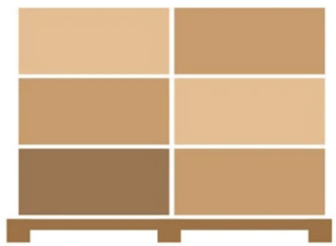
To ensure stability and prevent damage during transport, follow these stacking requirements:

- **No Overhang**: Boxes must be stacked so that no part extends beyond the edge of the pallet. All stacked materials must remain within the pallet's footprint to avoid instability and potential damage.

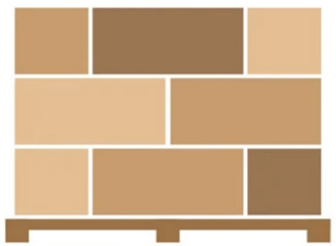
- **Even Load Distribution**: Distribute the load evenly across the pallet to prevent uneven weight distribution. This practice helps to mitigate the risk of pallet instability during transit.

- **Stacking Patterns**:
  - Plan Patterns: Develop stacking patterns that protect the product and optimize space usage. Proper planning ensures that the stack is stable and minimizes the risk of damage.
  - Package Size Consideration: Determine appropriate stacking patterns for each package size to maximize interlocking and effective use of the pallet. This approach helps in achieving a secure and stable stack.
  - Pallets with boxes should be stacked only if the box material can withstand the weight.

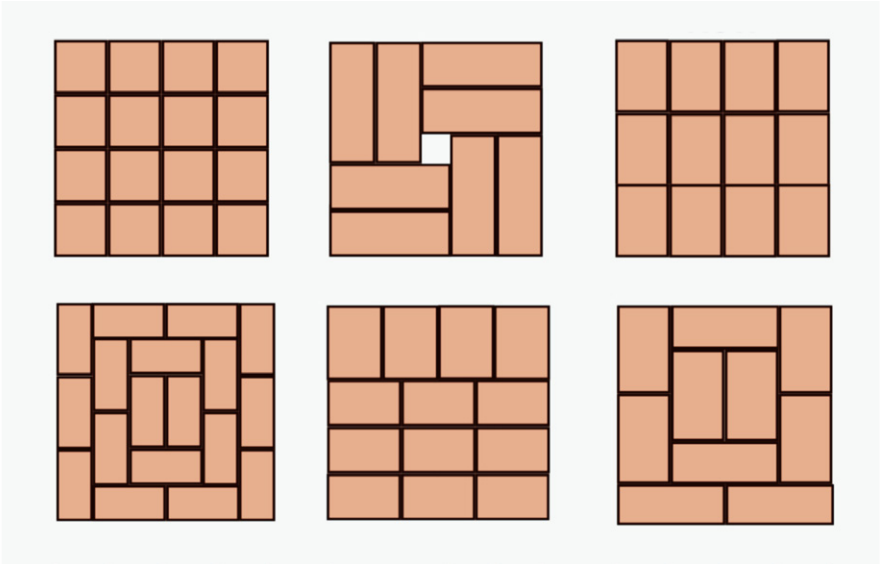
- **Match Dimensions**: Ensure that the length and width of the cargo match the dimensions of the pallet. Proper alignment helps in maintaining stability and prevents shifting of the load when stacked.



Column Stacking



Interlocked Stacking



Stacking Patterns

End of Life Management

Design packaging to use minimal material while maintaining protection and prioritize the use of eco-friendly materials. Avoid landfill disposal, when feasible, follow local regulations and explore alternative waste management options.

Pallets labelling

The supplier must ensure all labeling requirements comply with the delivery instructions specified in the Purchase Order (PO) and the requirements in the product's technical specifications. The supplier is responsible for applying a label containing a waybill on at least two sides of the pallet. The waybill must contain the following information:

- The shipper's name and contacts information.
- The receiver's name and contact information.
- Ship from address (Consignor).
- Ship to address (Consignee).
- Details of the carrier.
- Special handling instructions for specific cases (e.g. dangerous goods).
- Shipping Marks should be made in accordance to PO details.

It is important to avoid overlapping with other labels.
All info in the waybill should be printed in a clear font to make sure it is readable by all the concerned personnel.

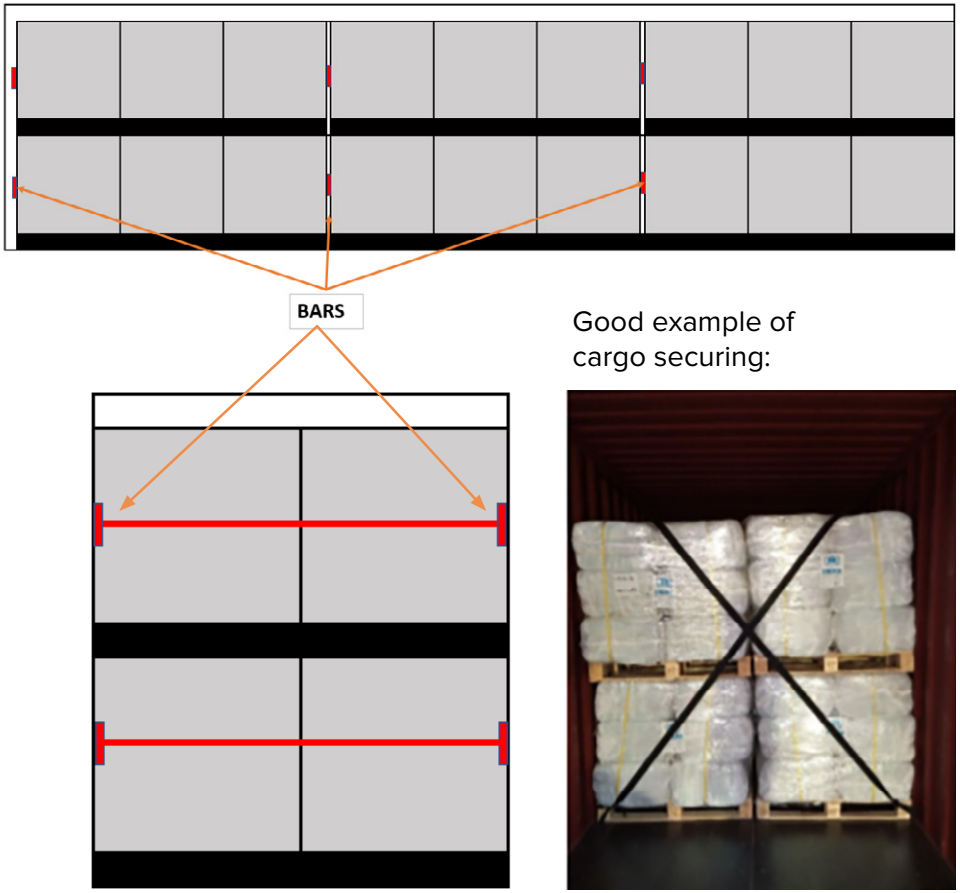
The label marking for the pallets should be sent for UNHCR approval prior to printing/application on the pallets for the first PO issued by UNHCR.

Cargo securing

When responsible for loading and shipping the products, the supplier needs to safely secure the cargo inside the container by using different techniques including the following:

1. Load goods in a way that they can hold each other as utilizing the whole floor area, and leveling the top layer of goods reduces the need for additional securing material.
2. Ensure that the container is fully loaded, to avoid the collapse of pallets.
3. Use blocking and bracing: Blocking prevents cargo from moving laterally and bracing means preventing the cargo from moving vertically.
4. When possible use lashings and tie-down, which is the most common method used to secure cargo from shifting.
5. Locking involves the use of mechanical locks present in a load bearer or cargo carrier.
6. Use Dunnage and Dunnage bags to protect cargo and absorb the shock caused due to shifting during transportation, especially in the case of loading a cargo with unpalletized goods.
7. Fully load containers with unpalletised goods (loose goods), when weight restrictions don't apply.
8. Use clean and dry packaging materials giving preference to sustainable materials to protect the products from water exposure, dust, and mold accumulation during transportation.
9. Flat board should be placed between the pallets to protect the goods.

It is recommended to secure the cargo in different parts of the container (every 1/3) with bars of straps as per below drawing:



Good example of cargo securing:

Containers conditions

All goods and packing materials (Boxes, Pallets, etc.) received into UNHCR's custody must be free from water exposure, dust, and mold.

Ensure there is a quality control check before loading any container to confirm it is clean, dry, free of odors, crack and/or rust, and has no hole or potential leakage.

The supplier is responsible for the containers' quality and cargo securing, unless the purchase order is Ex Works(EXW) in Incoterms.

The container's unacceptable conditions include: dirty (i.e. unclean, moldy, oily), scratched, with holes, cracks, splits, excessive corrosion affecting the structural strength, significant dents, improper welding that could compromise the cargo's safety. The container should be reasonably clean and dry. Minor dust or marks are acceptable, but excessive dirt, oil, stains, debris, or moisture that could affect the cargo should be addressed. The container must be watertight to protect the cargo. Door Seals: rust that inhibits proper closure, creates sealing gaps, or prevents door operation is unacceptable. Holes and Cracks: This is non-negotiable. Any penetration through both layers should be classified as immediate rejection. Load-bearing components: any rust affecting corner posts, cross members, or other load-bearing areas should be classified as high risk. The container's floor must be strong and intact, capable of bearing the weight of the cargo and the equipment used in loading and unloading. It should be free from weaknesses such as rot or holes. The container must adhere to its maximum payload capacity.

For more information, please check the Purchase Order and contact the buyer or the Quality Assurance team at UNHCR."

UNHCR
Supply Management Service

Quality Assurance
hqqapd@unhcr.org

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