INDUSTRIAL PLYWOOD PACKAGING BOXES

Export Grade Foldable & Rigid Plywood Box Specifications

SPEC NO: PLY-BOX-2026
Standards: ISO 1496 / ISPM 15 / ASTM D5118

1. SCOPE & ENGINEERING OVERVIEW

This document defines material standards, tongue-and-groove steel strip locking systems, exterior WBP plywood ratings, pallet base skids, and ISPM 15 exempt/compliant parameters for heavy-duty industrial plywood export containers.

2. STRUCTURAL ASSEMBLY & STEEL LATCH SYSTEM



3. TECHNICAL COMPONENT & MATERIAL PARAMETERS

Box Component	Material & Technical Specifications	Performance & Strength Standard
Plywood Panels	Multi-ply Birch or Poplar exterior plywood bonded with Phenolic WBP (Water Boiled Proof) glue.	Formaldehyde emission: E0 / CARB P2 grade; 24-hr water immersion test pass without delamination.
Corner Steel Strips	0.8mm–1.2mm hot-dipped galvanized steel profile with integral pressed tongue tabs.	Yield strength > 280 MPa; 72-hr salt-spray corrosion resistance rating.
Pallet Base Skids	78mm × 90mm solid timber or composite wood blocks faced with 12mm bottom plywood deck.	Rated for dynamic loads up to 3,000 kg; 4-way entry for standard forklift tines.
Box Lid & Locking	Quick-release metal clip locks or bendable steel tongue latches for nail-free assembly.	Allows tool-free opening and re-sealing up to 50 operational reuse cycles.
Internal Lining	VCI anti-rust polyethylene film liner with interior foam corner buffers (25mm EPE).	Prevents galvanic and atmospheric oxidation on high-precision metal parts during sea freight.

4. QUARANTINE COMPLIANCE, TESTING & LOGISTICS

ISPM 15 & PHYTOSANITARY ADVANTAGE

- **Exempt Status:** Processed plywood is internationally exempt from ISPM 15 heat treatment rules.
- **No Heat Treatment Needed:** Smooth customs clearance across US, EU, China, and Australia.
- **Weight Efficiency:** 30% to 40% lighter than traditional sawn timber boxes of equal volume.

STRUCTURAL TESTING STANDARDS

- **Compression Rating:** Certified vertical stacking strength to ASTM D642 up to 4,000 kg load.
- **Vibration & Drop:** Tested to ISTA 3B standards for international multimodal shipping.
- **Flat-Pack Storage:** Disassembled ratio 1:5; reduces warehouse storage footprints significantly.