

Sheet Goods Storage and Handling Safety Standard Operating Procedure

1.0 Objective & Scope

The objective of this procedure is to ensure the safe, efficient, and damage-free storage and handling of sheet goods (including plywood, MDF, particleboard, OSB, drywall, and cement board) within the warehouse. This SOP aims to prevent material damage (warping, edge chipping, moisture absorption), reduce worker injury from improper lifting or unstable stacks, and maintain inventory accuracy through proper FIFO rotation and location tracking. This procedure applies to all warehouse personnel involved in receiving, storing, picking, and shipping sheet goods.

2.0 Required Systems, Tools & Materials

- SupplyGrid WMS (or equivalent ERP) with bin location and inventory tracking module
- Barcode scanner (Zebra or equivalent) with scanning functionality for bin locations and SKUs
- Forklift with extended forks (minimum 48-inch length) and side-shift capability
- Forklift attachment: vacuum lifter or clamp attachment for vertical sheet handling (recommended for heavy sheets)
- Pallet jacks (manual or electric) rated for sheet goods weight
- A-frame racking or cantilever racking designed for sheet goods (with vertical dividers or backstops)
- Plastic or wooden dunnage (4x4 timbers or plastic spacers) for separating stacks
- Edge protectors (cardboard or plastic) for strapping and banding
- Strapping tools and polypropylene or steel strapping (for bundling loose sheets)
- Moisture barrier (plastic sheeting or vapor barrier) for ground-level storage
- Personal protective equipment (PPE): steel-toed boots, high-visibility vest, cut-resistant gloves, safety glasses, hard hat (if overhead storage)
- Clipboard, pen, and discrepancy report forms (or digital equivalent in WMS)

3.0 Safety & Handling Precautions

- High-visibility vest and steel-toed boots are mandatory in all active forklift zones and storage aisles.
- Cut-resistant gloves must be worn when handling raw sheet edges (especially MDF, particleboard, and cement board) to prevent lacerations.
- Hard hat is required when working near overhead racking or when sheets are stored above 6 feet.
- Never stack sheet goods directly on concrete floors without a moisture barrier or dunnage to prevent moisture wicking and warping.
- Maximum stack height for sheet goods must not exceed 6 feet (or manufacturer recommendation, whichever is lower) to prevent toppling.
- Always use two-person lift or mechanical assistance for sheets longer than 8 feet or weighing over 25 kg per sheet.
- Forklift operators must be certified and trained on handling oversized, flexible loads. Use extended forks to support full sheet length.
- Inspect all sheets for damage (cracks, delamination, moisture spots) before storage and before picking. Quarantine damaged sheets immediately.

- Maintain clear aisle widths of at least 10 feet for forklift turning radius when transporting sheet goods.
- Do not store sheet goods near heat sources, open flames, or in areas prone to water leaks or condensation.

4.0 Step-by-Step Procedure

1. Log into the SupplyGrid WMS and navigate to the 'Receiving' module. Select the purchase order or inbound shipment for sheet goods.
2. Inspect the delivery vehicle and the sheets for visible damage (cracks, water stains, edge chipping, delamination). Reject any damaged sheets at the dock and note on the receiving report.
3. Scan the barcode on the packing slip or the master pallet label to associate the shipment with the purchase order in the WMS.
4. Using a forklift with extended forks, unload the sheet goods from the truck. For bundles, keep them strapped together during transport. For loose sheets, use a vacuum lifter or clamp attachment to prevent slippage.
5. Transport the sheet goods to the designated storage area (A-frame rack, cantilever rack, or floor storage zone). Ensure the path is clear of obstacles and other personnel.
6. If storing on the floor, place a moisture barrier (plastic sheeting) on the concrete, then lay 4x4 dunnage spaced 24 inches apart. Stack sheets flat, with edges aligned, and do not exceed the maximum stack height of 6 feet.
7. If storing in A-frame or cantilever racking, tilt sheets slightly backward (5-10 degrees) against the backstop to prevent forward toppling. Use vertical dividers to separate different SKUs or thicknesses.
8. Scan the bin location barcode (e.g., 'A-12-3') in the WMS, then scan the barcode of the first sheet or bundle. Enter the quantity of sheets placed in that location. The WMS will update the inventory record.
9. Apply FIFO (First In, First Out) logic: when storing, place new stock behind or below existing stock of the same SKU. If the racking does not allow physical FIFO, update the WMS with the receipt date to enable system-driven FIFO picking.
10. For picking, log into the WMS and select the 'Pick' task. The system will direct you to the oldest bin location for the SKU. Scan the bin location, then scan the sheet or bundle barcode.
11. Remove the required number of sheets. If removing a partial bundle, re-strap the remaining sheets with polypropylene strapping and edge protectors to prevent shifting during future handling.
12. Transport picked sheets to the staging or shipping area using a forklift or pallet jack. Secure the load with straps if transporting over 50 feet or across uneven surfaces.

5.0 Verification & Discrepancy Reporting

1. After storing or picking, perform a visual verification: confirm the physical count matches the system count in the bin location. If the count differs by more than 1 sheet (or 2% of total quantity, whichever is greater), flag the discrepancy.
2. If a sheet is found to be damaged (cracked, delaminated, water-stained) during storage or picking, immediately attach a red 'Quarantine' tag to the sheet and move it to the designated quarantine zone.
3. In the WMS, update the inventory status of the quarantined sheet to 'Damaged - Quarantine' and record the damage type and quantity. Do not ship or use quarantined stock.
4. For any discrepancy (count mismatch or damage), complete a 'Discrepancy Report' form (physical or digital) within 30 minutes. Include the SKU, bin location, expected count, actual count, damage description, and operator name.
5. Escalate the discrepancy report to the Inventory Manager or Shift Supervisor immediately if the value of the discrepancy exceeds \$200 CAD or if the count variance is greater than 5%.

6. The Inventory Manager will investigate the root cause (e.g., mis-scan, theft, damage during handling) and initiate a corrective action, such as a recount, process retraining, or system adjustment.
7. All discrepancy reports and corrective actions must be logged in the WMS audit trail for monthly inventory accuracy reviews.

Regulatory Disclaimer: This document is a generic operational template provided for educational purposes. The end-user assumes all liability for reviewing, adapting, and validating all step sequences and material handling protocols against local shop capabilities.