



PACKAGING GUIDELINES

OVERVIEW:

Lowe's is committed to providing customer-valued solutions with the best prices, products and services to make Lowe's the first choice for home improvement. Proper packaging plays a key role in achieving these goals. Packaging should be designed to:

- Minimize damages and promote customer satisfaction
- Promote operationally efficient merchandising in the retail environment
- Minimize distribution handling, storage and transportation costs
- Reduce waste and unnecessary materials costs

Lowe's needs the support of the vendor community to achieve these goals. Through improvements to packaging, labeling, and unitization we will *mutually reduce costs and deliver greater value to Lowe's customers.*

COLLABORATING TO IMPROVE DISTRIBUTION EFFICIENCY:

Vendors can support our progress towards reducing distribution handling costs and improving operational efficiency by taking the following actions during the Product Line Review process, or as requested by the Lowe's Mexico Vendor Supply Chain Analysts:

- ***Adhering to the packaging specifications and labeling requirements in these guidelines.***
 - Proper packaging design and labeling reduces the potential for losses due to damage at distribution centers/retail stores.
 - Compliance to the standards will help us to keep prices low and improve customer satisfaction.
- ***Consulting with the Lowe's Mexico Vendor Supply Chain Analysts to determine the optimal packaging quantity and Ship Unit for new and existing items***
 - The Vendor Supply Chain Analyst can analyze various case quantity and/or pallet quantity alternatives.
 - The packaging quantity should be designed to support efficient distribution and optimize inventory turn based on rate of sale in the retail environment.
- ***Collaborating with their Lowe's Mexico Vendor Supply Chain Analyst to eliminate unnecessary packaging materials***
 - Lowe's is committed to environmental responsibility and asks for your cooperation to reduce waste and avoid unnecessary costs.
 - Loose packaging material is not permitted unless specifically required for product protection.
- ***Ensuring compliance with Lowe's Pallet Requirements as outlined in Appendix A and B of this document***
 - The use of non-standard and non-fumigated pallets results in higher costs to Lowe's for receiving, storage, handling, and pallet disposal.
 - If your product cannot be shipped on a standard pallet due to dimensional constraints, work with the Lowe's Mexico Vendor Supply Chain Analyst to determine the optimal pallet size.
- ***Implementing proper pallet heights***
 - Optimizing pallet heights provides freight, handling, and storage efficiencies.
 - Lowe's Mexico optimal pallet height for rack storage is 50" (including height of pallet)
 - If shipping pallets greater than 50" in height, please contact your Lowe's Mexico Vendor Supply Chain Analyst.

LOWE'S DISTRIBUTION FLOW:

It is important to understand how your product flows as you refer to the Handling/Storage Types on Page 4. Products flow through Lowe's Distribution Centers in one of three ways:

- **Stock**
 - Product is shipped to a Lowe's DC and stored in a location in the facility
 - When demand exists for the product, it is picked from the storage location and shipped from the DC to a Lowe's store
- **100% Cross-Dock (1XD)**
 - Product is **not** stored in a location in the facility.
 - It is ordered based on demand at the store level.
 - Upon arrival at the DC, it is received, sorted and then immediately moved to the outbound trailer dock door. It is then shipped from the DC to a Lowe's store.
- **Vendor Prepared Cross-Dock (VPXD) including SOS orders and Product Support Materials (PSM)**
 - These are individual Store Purchase Orders grouped together for shipment in Truckload volume to the Lowe's DC that supports those stores.
 - VPXD orders are **not** received at the DC.
 - Upon arrival at the DC, orders are immediately moved to the outbound trailers destined for the designated Lowe's stores.

There are some programs that do not flow through a Lowe's Distribution Center; instead they ship directly from the vendor to a Lowe's store. This is known as **Store Direct** (DSD) flow.

Store Direct requirements are addressed in the "General Packaging Requirements" on pages 3-4 of this document

Your Lowe's Mexico Vendor Supply Chain Analyst can help you to determine which distribution flow type (Stock, 1XD, VPXD, Store Direct) is used for your program.

GLOSSARY OF PACKAGING TERMS:

The following terms are used in reference to packaging specifications:

Master Carton (MC): A master carton is a shippable carton or bundle that contains one or more identical selling units.

Inner Pack (IP): A smaller, multi-piece container that is shipped inside of the Master Carton. It may be a fully enclosed shipper carton, or a bundle of items. To qualify as an Inner Pack, it must be capable of being separated from the Master Carton for shipment to an individual store.

I2of5: The bar code used for Master Cartons and Inner Packs (representing a quantity greater than 1 unit)

UPC (Universal Product Code): The bar code used for the individual selling unit

Ship Unit: The quantity of the item that is shipped from a Lowe's Distribution Center to an individual Lowe's store. The Ship Unit may be equal to the Pallet Quantity, the Master Carton quantity, the Inner Pack quantity, or a single unit (each).

GENERAL PACKAGING REQUIREMENTS

The following general requirements apply to all products shipped to a Lowe's Distribution Facility or to a Lowe's store:

Packaging:

- Any packaging changes (including changes to carton quantities, dimensions, weights, or packaging materials), exceptions to standards in this document, and unique packaging requirements must be approved by Lowe's Mexico Merchandising and Vendor Supply Chain.
- All Inner Packs and Master Cartons must be sealed to eliminate the potential of accidental opening.
- Cartons should be sealed with tape or glue. See **Appendix D** for instructions on **Recommended Guidelines for Application of Adhesives**
- Master Carton must meet a minimum single wall corrugated carton specification (see **Appendix E** for **Corrugate Specs**)
- Vendors should ensure that cartons are compliant with the International Safe Transit Association (ISTA) testing protocols. Visit www.ista.org for more information.
- Corrugated Master Cartons must be printed with the Box Manufacturer's Certificate (BMC). See **Appendix G** for example.

Carton Access Hole Requirements

- Required on all large-sized corrugated Master Cartons meeting the following criteria:
 - Outside carton dimensions are greater than 24" x 18" x 18" and
 - Carton weight greater than or equal to 30 lbs.
- All access holes should be located on opposing carton panels.
- See **Appendix F** of this document for **Access Hole Specifications**

Labeling:

- Item number digits and master carton quantity should be printed as large as possible to enable easy identification by DC Team Members and Store Associates.
- Information should be printed directly on the master carton on all visible carton panels (four sides and top)
- If Master Carton Quantity is greater than 1, Master Carton must be labeled with valid I2of5 bar code that represents the total number of sellable units in the Master Carton
- If the Master Carton quantity is equal to one (MC =1), there must be a UPC bar code and vendor model number
- **This Way Up Arrow Icon (see example in Appendix C)**
 - Only use if necessary identify the correct orientation of the product for shipping and storage purposes
 - When using arrows, limit to only one set of arrows to indicate the required orientation
 - Required for packaging of fragile or liquid items
- **Takes 2 to Lift Icon (see example in Appendix C)**
 - Required if Master Carton weight is > 70 lbs and/or if Master Carton is awkward for customers/employees to grasp (large and heavy)

Unitization/Palletization

- Lowe's requires one item number per master carton. Mixed items in master cartons are **not** allowed.
- Any changes to the Ship Unit (i.e. carton/pallet quantity shipped into to a Lowe's Distribution Center or Store) must be approved by Lowe's Mexico Merchandising and Supply Chain.
- Order Quantities
 - Lowe's will order items in multiples of the Inner Pack, Master Carton, Tier (layer of pallet) or Pallet quantities.
- When unitizing pallets, place cartons of the same item (i.e., same SKU) together on the pallet by the quantity amount ordered.
- If possible, group each item together in a tier (layer)
- **Do not** mix the same item across multiple mixed pallets.
- Locate pallets of the same item (same SKU) together in the trailer. This will improve receiving efficiency at the Lowe's DCs.
- Slip sheets or cardboard separators should be used:
 - between tiers of unlike items on the pallet
 - at the 50" height mark if total pallet height is > 50"
- Vendors must use pallets that conform to Lowe's Pallet Specifications – See **Appendix A** and **B** of this document.
- Any exemptions to use non-standard pallets must be approved by a Lowe's Mexico Vendor Supply Chain Analyst.

LOSS PREVENTION REQUIREMENTS:

Please refer to Lowe's Mexico LowesLink® EAS Source Tagging Requirements document.

Liability for Concealed Damages:

- Any concealed damage to product or packaging which is to be displayed will be addressed with vendor based on the Lowe's Mexico LowesLink® Product Returns policy.
- Please review Lowe's Mexico Receipt Liability policy available on Lowe's Mexico LowesLink®.

STRETCH WRAP REQUIREMENTS:

These requirements apply to all flow types

For product stored inside a Store or Distribution facility:

- Stretch wrap all individual pallet / slip sheet loads to the base of the pallet / slip sheet with sufficient stretch wrap to prevent the product from shifting in transit.

For product stored outside a Store or Distribution facility (i.e. landscaping block, patio pavers and other concrete block items) – special requirements below apply

- Items stored on pallets outside a Lowe’s Store (Outdoor Lawn & Garden area) or outside a Lowe’s Distribution facility require UV resistant stretch wrap material to enhance/preserve the performance capabilities and prevent damage from the exposure of extreme weather conditions.

<i>Film Type</i>	Blown
<i>Film Color</i>	Clear
<i>Minimum Gauge</i>	80 g.
<i>Minimum UVI Concentration</i>	5%

USE OF DESICCANTS

- Objective: To reduce moisture damage
- The following product categories require a small desiccant bag (silica gel or clay only) be placed inside each individual product carton
 - Electrical/Electronic Products such as (but not exclusive to) light fixtures, ceiling fans, Trim-a-Tree, etc.
 - Fabric Materials such as (but not exclusive to) leather materials, gloves, umbrellas, etc.
 - Metal Products such as (but not exclusive to) nails, fasteners, garden tools, etc.
- For other exposed moisture sensitive products such as wheel barrels, etc., a large (80-unit) desiccant bag should be contained with the product in a plastic bag or barrier inside the shipping container.
- **Do not** scatter desiccant bags loosely inside a rail container or trailer.

ABRASION RESISTANCE OF PRINTED PACKAGING MATERIALS (SUTHERLAND RUB TEST)

- Objective: ***To ensure resistance to abrasion or scuffing during shipping.***
- **Includes all Distribution Flow types**
- Applies to all packaging materials having applied graphics on a flat surface, including:
 - corrugated boxes
 - folding cartons
 - labels
 - inserts
- The printed materials identified above must be able to withstand 100 strokes (a stroke is one back-and-forth cycle) using a 4-lb weight without scuffing, fading, or abrasion to printed graphics on box

INNER AND CASE PACK REQUIREMENTS:

Definition:

- Item can be safely handled without incurring damage or damaging other items/equipment.

Packaging:

- Inner Packs must be capable of being received or separated from the Master Carton for shipment to an individual store.
- Cartons must not damage the DC's material handling equipment.
- Cartons should be sealed with tape or glue.
- Banding is **not** allowed.
- Staples should not be used on Master Cartons or Inner Packs; they can pose a safety hazard to employees during the picking process.
- **Liquid items will be conveyed upright and should be labeled with the "Liquid" icon (see Appendix C of this document). When possible, place in boxes with flaps facing up.**

Additional Category –Specific Requirements:

- Grill vendors should refer to **Grill Packaging Specs** on LowesLink® Mexico.
- Toilet vendors should refer to **Toilet Packaging Specs** on LowesLink® Mexico.
- Bath Vanity vendors should refer to **Vanity Packaging Specs** on LowesLink® Mexico.
- Ceramic Tile vendors should refer to **Ceramic Tile Packaging Specs** on LowesLink® Mexico.
- Patio Furniture vendors should refer to **Patio Furniture Packaging Specs** on LowesLink® Mexico.
- Shower Door vendors should refer to **Shower Door Packaging Specs** on LowesLink® Mexico.

Labeling:

- Refer to **LowesLink® Carton Labeling Templates document for labeling content requirements – see Master Carton template and Breakpack/Inner Pack Carton Templates**. If your carton is shipped to Lowe's US or Canada store, please keep Lowe's US or Canada item number.
- Inner Packs must be labeled with a valid I2of5 bar code that represents the total number of sellable units contained in each Inner Pack
- Apply Pallet Label – refer to Lowe's Mexico LowesLink® Pallet Label.

Unitization/Palletization:

- Inner and case pack items must be palletized.
- Use of 4-way entry pallets is required.

PALLET SHIP REQUIREMENTS:

Definition:

- Item ships into the DC or Store in full pallet quantities (single-item pallets)

Packaging:

- Banding is not recommended; however if necessary it should be made of plastic and tightly secured to product.
- Ensure any banding does not damage sellable units.
- The use of metal banding is **not** allowed for safety reasons.

Additional Category –Specific Requirements

- Bird Seed Vendors should refer to **Bird Seed Packaging Specs** available on LowesLink® Mexico.

Labeling:

- Refer to **LowesLink® Carton Labeling Templates document for labeling content requirements** → see Master Carton template for labeling of individual Master Cartons. If your carton is shipped to Lowe's US or Canada store, please keep Lowe's US or Canada item number.
- There must be one label on pallet that includes a valid I2of5 for pallet qty if pallet qty is > 1.
- Apply Pallet Label – refer to Lowe's Mexico LowesLink® Pallet Label.

Unitization/Palletization

- Lowe's will order items in full pallet quantities
- Use of 4-way entry pallets is required. See **Appendix A** and **B** for details.
- Maximum allowable overhang is 1" along shortest side of pallet (i.e. 40" side). Overhang is not allowed along the longest dimension (i.e. 48" side) of pallet.

MINI-PALLET SHIP REQUIREMENTS:

Definition:

- Mini-Pallet – used for items that ship on a quarter-pallet (20" x 24") from vendor to DC or Store

Packaging:

- Individual units/cartons must be secured so that the mini-pallet can be safely moved via forklift equipment throughout the DC facility or Store.
- Banding is acceptable, but if used must tightly adhere the product to the mini-pallet.
- Ensure any banding does not damage sellable units.
- The use of metal banding is **not** allowed for safety reasons.

Labeling:

- Refer to **LowesLink® Carton Labeling Templates document for labeling content requirements** → see Master Carton template for labeling of individual Master Cartons. If your carton is shipped to Lowe's US or Canada store, please keep Lowe's US or Canada item number.

- There must be one label on pallet that includes a valid I2of5 for pallet qty if pallet qty is > 1.
- Apply Pallet Label – refer to Lowe’s Mexico LowesLink® Pallet Label.

Unitization/Palletization:

- Vendors must use a Lowe’s approved mini-pallet. See **Appendix A** and **B** for details.
- The Lowe’s Mexico Vendor Supply Chain Analyst must approve any request for an exception to the approved mini-pallet.

BULK STORAGE REQUIREMENTS

Definition:

- Used for large-sized, high volume items that are loaded into trailers using forklift equipment
- Item must be capable of handling via forklift equipment without incurring damage.
- Lowe’s preference is that item be able to lift on all 4 sides (***) Does not apply to Appliances)
- Items must be capable of stacking 16 feet high without incurring damage to product or selling carton.
- If items cannot stack 16 feet high, they will be classified as an exception item.
- Exception items must be approved by your Lowe’s Mexico Vendor Supply Chain Analyst.
- Palletized exception items must be capable of stacking 3 pallets high (at least 50” per pallet)

Packaging:

- Banding is not recommended; however if necessary it should be made of plastic and tightly secured to product.
- Ensure any banding does not damage sellable units.
- The use of metal banding is **not** allowed for safety reasons.
- Items must be able to maintain stack integrity at 16 ft. height without use of shrink-wrap or other bracing mechanisms.

Additional Category –Specific Requirements:

- Grill Vendors should refer to [Grill Packaging Specs](#) available on LowesLink.com
- Patio Furniture Vendors should refer to [Patio Furniture Packaging Specs](#) available on LowesLink.com

Labeling:

- Refer to **LowesLink® Carton Labeling Templates document for labeling content requirements** → see Bulk Carton Template for example. If your carton is shipped to Lowe’s US or Canada store, please keep Lowe’s US or Canada item number.

Handling Icons for Bulk Items (See Appendix C- Special Handling Icons for examples)

- Icons must be at least 5” high and printed in permanent ink.
- Item must be labeled with appropriate forklift and clamp setting icon and must indicate maximum clamp pressure in lbs. per square inch (PSI)
- Clamp or No Clamp Icons:
 - The clamp icon and the appropriate pressure setting (1, 2, or 3) should be used on the packaging sides that are right reading when the package is clamped.
 - The sides that should **not** be clamped should be labeled with the No Clamp icon.
- Maximum Stack Height Icon

- The recommended stack height is to be identified by the vendor, but **must be a minimum of 16 feet**
- Icon should indicate number of cartons that can be stacked on top of one another without incurring damage.
- Express as a **number of cartons**, not number of feet

STACK RACK/LONG-LENGTH STORAGE REQUIREMENTS:

Definition:

- Stack Racks are used for large-sized, high volume items stored on oversized (91.5" L X 41.5"W) metal racks
- Stack Rack items must be capable of stacking 50" high in the racks without damage to cartons and/or sellable product.
- Long-length Storage is used for items that are not wide enough for bulk storage but are > 54" L along longest side
- Two types of long-length storage exist:
 - *Vertical Long- Length Storage* (product that must be stored vertically ↑↑)
 - *Horizontal Long-Length Storage* (Product that can be placed with longest side horizontal to ground →)

Packaging:

- Banding is not recommended; however if necessary it should be made of plastic and tightly secured to product.
- Ensure any banding does not damage sellable units.
- The use of metal banding is **not** allowed for safety reasons.

Additional Category –Specific requirements:

- Patio Furniture Vendors should refer to **Patio Furniture Packaging Specs** available on LoweLink.com

Labeling:

- Refer to **LoweLink® Carton Labeling Templates document for labeling content requirements** → see *Stack Rack Template for example*. If your carton is shipped to Lowe's US or Canada store, please keep Lowe's US or Canada item number.
- Apply Pallet Label – refer to Lowe's Mexico LoweLink® Pallet Label.

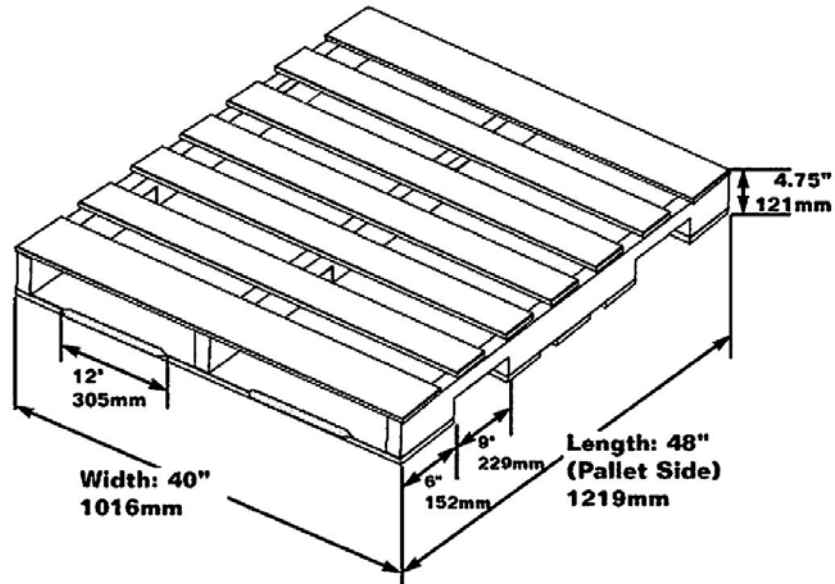
Unitization/Palletization:

- Stack Rack items must be shipped into Distribution Center or Store on pallet that is less than 42" along shortest dimension

Appendix A: Lowe's Standard Pallet Specifications

Standard Pallet is Fumigated and Certified wooden pallet, 40" x 48", with 4-way entry required

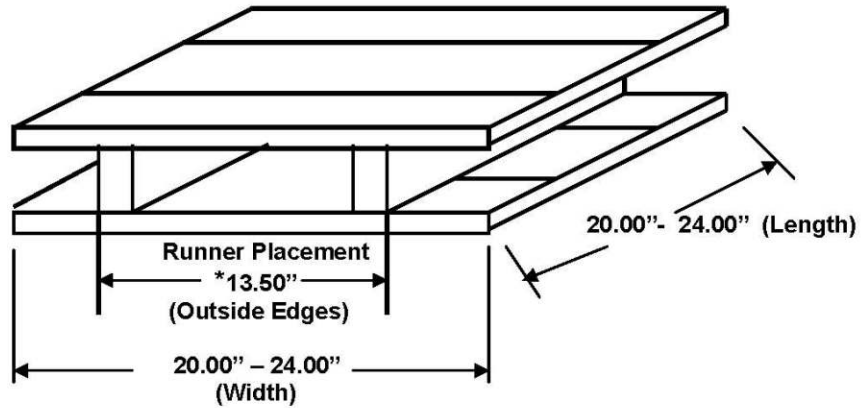
The construction of the pallet must be accessible for all forklift equipment to facilitate handling throughout the entire distribution process.



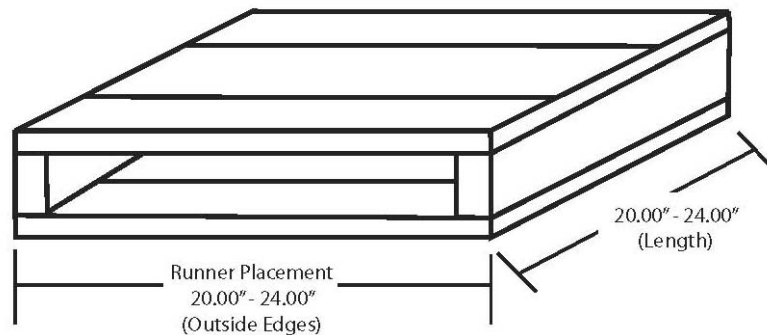
<ul style="list-style-type: none"> • Pallet Dimensions (L x W) 	<ul style="list-style-type: none"> • Length = 48.00 inches. • Width = 40.00 inches.
<ul style="list-style-type: none"> • Pallet Style 	<ul style="list-style-type: none"> • Double Faced Non-Reversible
<ul style="list-style-type: none"> • Entry 	<ul style="list-style-type: none"> • 4-way entry only
<ul style="list-style-type: none"> • Lumber Specifications 	<ul style="list-style-type: none"> • Grade III and/or IV hardwood, clean sawn. Fumigated wood.
<ul style="list-style-type: none"> • Fastener Requirements 	<ul style="list-style-type: none"> • 2.00 inch screw shank nails.
<ul style="list-style-type: none"> • Top Deck Boards (7/pallet): 	<ul style="list-style-type: none"> • Outer Boards (2) = 0.625 x 5.75 x 40.00 inches. • Inner Boards (5) = 0.625 x 3.75 x 40.00 inches. • Space between boards: 3 inches (max.)
<ul style="list-style-type: none"> • Bottom Deck Boards (5/pallet): 	<ul style="list-style-type: none"> • Outer Boards (2, chamfered) = 0.625 x 5.75 x 40.00 inches. • Inner Boards (3) = 0.625 x 3.75 x 40.00 inches
<ul style="list-style-type: none"> • Runners (3/pallet): 	<ul style="list-style-type: none"> • 1.50 x 3.50 x 48.00 inches.
<ul style="list-style-type: none"> • Special note: 	<ul style="list-style-type: none"> • Fumigated pallet with correct standard marking is required.

Standard Mini-Pallet is made of wood, 20" x 24", with 2-way entry required

Standard Mini-Pallet Version (use for mini-pallets weighing less than 100 lbs)



Heavyweight Mini-Pallet Version (use for mini-pallets weighing more than 100 lbs) → provides better stability



	Standard Mini-Pallet	Heavyweight Mini-Pallet
Pallet Dimensions (L X W)	Length = 20.00 – 24.00 inches. Width = 20.00 – 24.00 inches.	Length = 20.00 – 24.00 inches. Width = 20.00 – 24.00 inches.
Pallet Style	Double-Wing, Double Faced Non-Reversible.	Double-Wing, Double Faced Non-Reversible.
Entry	2-way entry	2-way entry
Lumber Specifications	Grade III hardwood, clean sawn.	Grade III hardwood, clean sawn.
Fastener Requirements	1.625 inch screw shank nails.	1.625 inch screw shank nails.
Pallet Top (Top Deck Boards - 4 per pallet)	0.50 (min.) x 3.75 x 20.00 – 24.00 inches.	0.50 (min.) x 3.75 x 20.00 – 24.00 inches.
Pallet Base (Runners - 2 per pallet)	1.25 x 3.50 x 20.00 – 24.00 inches.	1.25 x 3.50 x 20.00 – 24.00 inches.
Pallet Base (Bottom Deck Boards - 2 per pallet)	0.50 (min.) x 3.75 x 20.00 – 24.00 inches.	0.50 (min.) x 3.75 x 20.00 – 24.00 inches.
Runner Spacing	13.5" apart, centered	Outside edge of mini-pallet

Important:

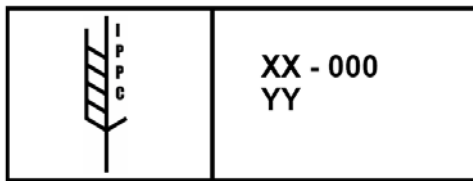
- Fumigated and certified pallet with correct standard marking is required.
- The construction of pallet and placement of the runners must allow entry with all Lowe’s handling equipment.
- Any deviation to this specification must be approved by the Lowe’s Mexico Vendor Supply Chain Analyst for Regular Replenishment items, or by the Promotional Display Manager for Promotions/Sidestacks.
- No more than 1 inch of the pallet deck can be exposed on any side of the product (max 1” underhang)
- No more than 1 inch of overhang is permitted on any side of pallet deck

Appendix B: Fumigated and Certified Wood Pallets and Materials

International Plant Protection Convention adopted new regulatory standards in March 2002 for the treatment of wood packaging material used in international trade.

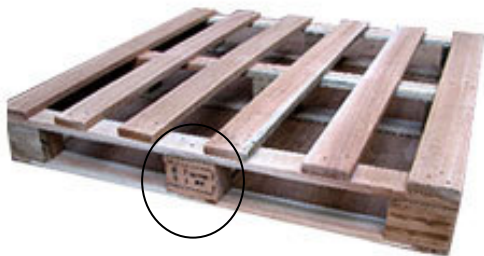
These standards affect all wood packaging material used in exporting/importing that contains unprocessed, raw wood. Pallets made of solid wood account for 80 percent of all packaging material used by both small and large exporters and importers in the United States, Canada, Mexico and other countries, and are therefore subject to these standards.

Wood pallets, packaging material or dunnage must be treated with one of the acceptable treatments and marked with the appropriate IPPC (International Plant Protection Convention) symbol.



Applicable for Pallets

The following examples illustrate the appropriate marking for acceptable treatments wood pallets:



The preparation of your shipment of any product to Lowe's Mexico must contain fumigated and certified wood pallets, skids, crates and any other packaging material with correct marking or any other non-wood pallet (plastic, etc.)

Non-fumigated or non-certified pallets are not permitted.

For any additional information, please visit the following IPPC link:

https://www.ippc.int/servlet/BinaryDownloaderServlet/133703_ISPM15_2002_with_Ann.pdf?filename=1152091663986_ISPM_15_2002_with_Annex1_2006_E.pdf&refID=133703

Appendix C: Special Handling Icons

CARTON MARKINGS / HANDLING ICONS



HAND TRUCK



CLAMP TRUCK SETTING



FORKLIFT



NO HAND TRUCK
THIS SIDE



NO CLAMP
THIS SIDE



NO FORKLIFT
THIS SIDE



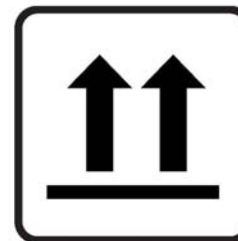
TAKES 2 TO LIFT



STACK HEIGHT



LIQUID



THIS WAY UP

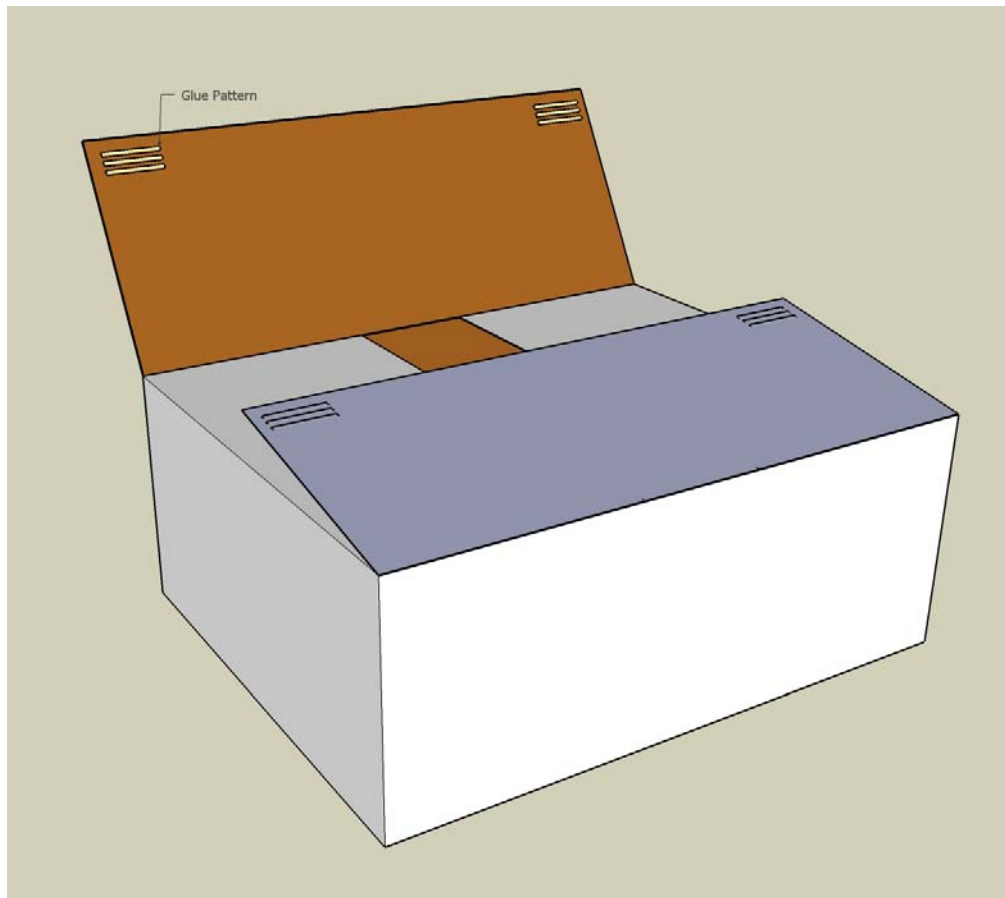
Appendix D: Recommended Guidelines for Application of Adhesives

Pressure Sensitive Tape:

- Tape should be approximately centered down the top seam.
- All tape supply should use a FIFO inventory as adhesives do have a shelf life.
- Tape tails should extend approximately 2 inches or longer beyond the top flap seam.
- Tape tails should be well adhered to the side of the box.

Hot Melt Glue:

- Glue placement should be approximately 1/2 inch from the width panel and near the flap edge (**see diagram below**)
- Multi pattern glue beads should be used with a length of 2 inches or more depending on performance requirements
- Glue bead should be flattened and provide significant fiber tear when opened (This will vary depending on the substrate being glued)
- Adhesive bond will vary by quality of adhesive (amount of resin used)
- The proper "open time" needs to be used, application specific, to ensure adequate bonding
- Varnishes and other surface energy reducing coatings should be avoided in glue areas to maximize bond strength

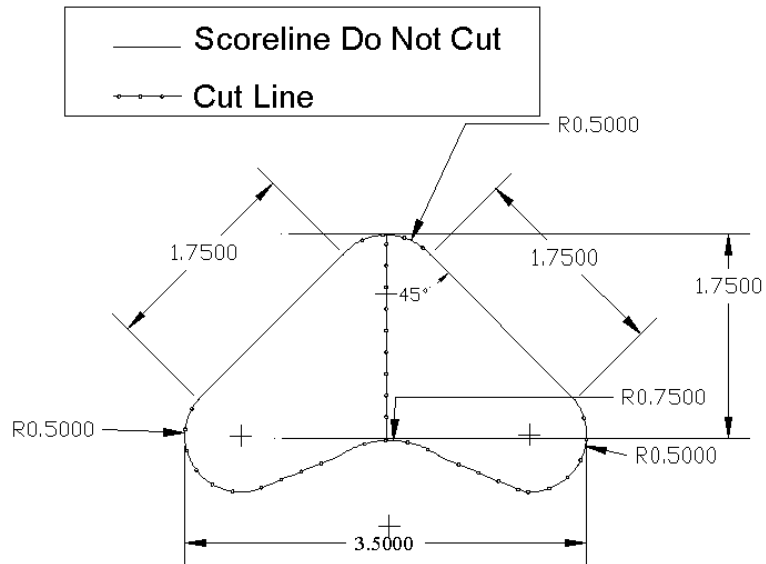


Appendix E - Lowe's Recommended Corrugated Carton Specifications

Product Weight (lbs./kg)	Maximum Outside Carton Dimensions (inches/cm)	Weight of Liners (Paper Weight) (lbs./kg per 1,000 sq. ft.)	Burst Test (lbs./kg per sq. ft.)	Edge Crush Test (ECT) (lbs./kg per in. width)
Single-Wall Corrugated Boxes				
20#/9kg	40"/102cm	52#/24kg	125#/57kg	23#/10kg
35#/16kg	50"/127cm	66#/30kg	150#/68kg	26#/12kg
50#/23kg	60"/152cm	75#/34kg	175#/79kg	29#/13kg
65#/30kg	75"/191cm	84#/38kg	200#/91kg	32#/15kg
80#/36kg	85"/216cm	111#/50kg	250#/113kg	40#/18kg
95#/43kg	95"/241cm	138#/63kg	275#/125kg	44#/20kg
120#/54kg	105"/267cm	180#/82kg	350#/159kg	55#/25kg
Double-Wall Corrugated Boxes				
80#/36kg	85"/216cm	92#/42kg	200#/91kg	42#/19kg
100#/45kg	95"/241cm	110#/50cm	275#/125kg	48#/22kg
120#/54kg	105"/267cm	126#/57cm	350#/159kg	51#/23kg
140#/64kg	110"/279cm	180#/82cm	400#/181kg	61#/28kg
160#/73kg	115"/292cm	222#/101cm	500#/227kg	71#/32kg
180#/82kg	120"/305cm	270#/123cm	600#/272kg	82#/37kg

- Lowe's recommends use of International Safe Transit Association (ISTA) testing methods to ensure compliance with these standards.
- Visit www.ista.org for additional information

Appendix F: Access Hole Specifications



Appendix G: Box Manufacturer's Certificate

Requirements:

- Name and location of box manufacturer must be printed
- Label must be at least **3 inches in diameter**

