VendorOperationsGuide

Furniture Packaging Guidelines

Released September 2023 - V3 (Updated 1/2025)

Crate&Barrel Crate&kids CB2 HUDSON | GRACE

New in 2024

Any new changes from previously released versions will be highlighted in Gray.

Packaging Specifications are required for each sku.

Packaging Specifications Template can be found here.
Reach out to packaging@crateandbarrel.com with any questions.

Addendum

- Container and Packaging Desiccant Revision
- Poly Bag Revision
- New Container Load Plan link
- Crated Pallet Style Requirement

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General Packaging Requirements

We take steps to protect the product through improved packaging materials and designs, with the expectation that our vendors comply with these standards. Vendors will incur a chargeback fee for non-compliance.

- Vendors shall use sustainable, recycled or easily recyclable packaging materials that meet or exceed all performance and quality standards.
- Polyfoam is an approved packaging material. EPE is the preferred foam. All EPS should not exceed 12% of the total carton cube.
- The total amount of packaging material used should not exceed 35% of the total carton cube.
- Reused packaging materials are not acceptable.
- All products should be in-house drop tested prior to quoting, but not required. All products must pass any applicable transit tests with an approved, ISTA certified lab upon PO.
- Packaging materials must protect the product and not result in an increase in damages.
- FSC paper packaging is encouraged.

<u>Unacceptable Packaging Materials</u>

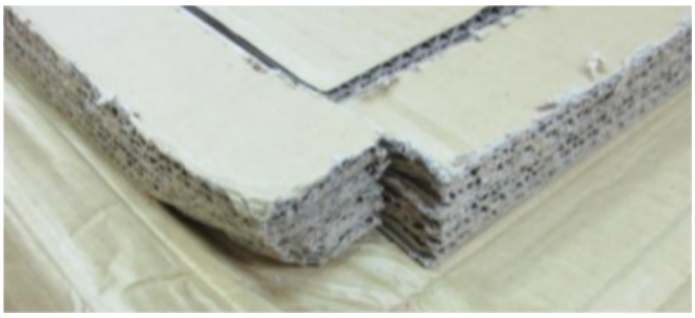
- Polyurethane Cushioning (Foam-in-Place)
- PVC
- Nylon
- Metal Banding
- Staples (used as a carton closure method)
- Loose fill (i.e. packing peanuts, cornstarch, expandOS®)

Interior Packaging Materials

Listed below are accepted interior packaging options that will maintain product integrity and meet Crate and Barrel's sustainable packaging goals:

- Corrugated - Corrugated is the most common protective packaging component composed of kraft paper liners with a corrugated medium. Corrugated can be produced in variety of styles such as multi-layered, flat, die cut, angled channel, u-channel, and pyramid. Used for load compression protection in cartons, internal blocking and protection for inner components and void fills, and impact protection from drops. FSC Corrugated is encouraged.

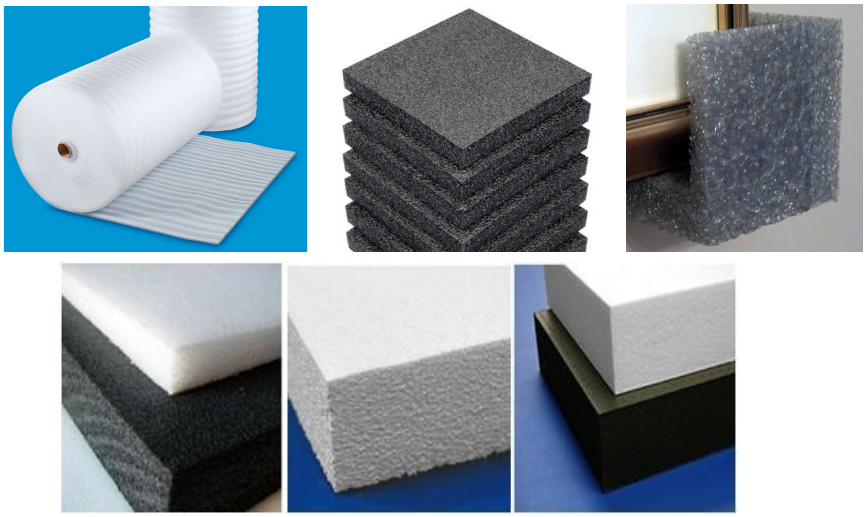


- Honeycomb - Honeycomb is a paper based protective material offering a strong, lightweight alternative to standard corrugated and foam. Similar to corrugated, it is composed of two faces and a middle core. Honeycomb can be used for void fillers, blocking and bracing, and die-cut to nest in product. FSC Honeycomb is encouraged.

  - When using honeycomb for corner and edge protection, the material cannot be bent. Use paper tape to create an edge that isn't already compromised

- Closed Cell Foam Cushioning - These types of foams include many used in packaging today including, but not limited to, Polyethylene (PE), recycled Polyethylene (rPET), Polystyrene (EPS). Types of foam can be seen below; sheets, pads, molded edge and corner cushions, are used for product and impact protection. These types of foams are less sustainable, but are sometimes recommended on highly fragile products. rPET is preferred.



When using foam cushion packaging, tape corrugated to the foam is not allowed. The warehouses cannot recycle each packaging material if taped together. Ensure correct foam density and thickness is being used to eliminate the need for a corrugated liner. If there is a need for additional corrugated support, please see guidelines here.

Packaging Desiccants

Desiccants help prevent any possible rusting on metal products, as well as mold and mildew on textiles, wood and paper products, and packaging. This is of particular concern if products are produced, packaged, or loaded into containers during high humidity seasons.

The following categories require packaging clay desiccants:

- upholstery

If a polybag is used and sealed, a desiccant is also required, regardless of product material type.

CBH has preferred clay desiccant suppliers that have given the proper documents to be approved. For a non-preferred supplier to be considered, the following will be required:

- Sustainable Documentation for Mine Source and Manufacturing Site
- Certification of Sustainable Desiccant Packaging Material (FSC paper, etc)
- Performance Testing (Compared to Silica Gel)
- Suggested Usage

Container Desiccants

Container desiccants are no longer required, but now is at a vendor's discretion. There is no requirement on the type of desiccant required but Calcium Chloride is suggested. Utilize a usage guide from your desiccant supplier. If used, non-domestic containers must be enclosed, with no venting.

Poly Bags

These requirements apply to all product lines. Approved poly bag materials include Polyethylene (PE) film, sheets, bubble cushioning bags used for surface protection. PE can be a low or high density film (HDPE or LDPE). Polyvinyl Chloride (PVC), Nylon and Oxo-Biodegradable plastics are not allowed. Recycled (rPET) is encouraged. For PE foam poly bag requirements, see below category specifications.

Requirements as as follows:

- A minimum thickness of 1.5mil is required for all polybags, with the exception of Kids Items, to which a 2 mil thickness is required
- Sealed poly bags require desiccants within the poly bag
- Poly bags with vent holes require a vent flap or a longer bag folded and taped to release air, but still protects contents from dust and dirt within our supply chain. Sealed poly bags with simple punch holes are not allowed.
- Certification for rPET material from vendor supplier is needed
- Recycling messaging indicating poly bag material is needed
    - Example:

- If a poly bag is being used as an inner packaging, the bag must be sealed with an outer UPC sticker permanently attached to the bag

- A suffocation warning statement is required for all bag sizes with an opening of 5” diameter and larger (measured when flat)
    - The warning statement needs to be permanent and legibly printed in either black or red ink directly on the bag, in English, Spanish, and French. A printed, non removable sticker is also acceptable.
    - Print size of suffocation warning:

Total Length and Width of Poly Bag	**Minimum Font Size**
60in or greater	24pt
40in - 59in	18pt
30in - 39in	14pt
29in or less	10pt

Hardware Packaging

When packaging an item that contains hardware, ensure that the hardware packet is clearly labeled and easy to identify, as it may be inadvertently disposed of or misplaced by associates or the customer when unpacking the carton. By using the packaging method listed below, the likelihood of missing hardware is reduced:

- All hardware packaging needs to be labeled with description and sku # associated with the hardware.

- Assembly Instructions should be noticeable and secured in the master carton, ideally within the hardware packaging poly bag or carton.

  - Hardware pieces need type and size noted below hardware photo
  - QR codes are encouraged
  - Photo only (no verbiage) assembly instructions are also encouraged
- All product's hardware should be packaged in a sealed red paper envelope, paper sleeve, chipboard carton or PE poly bag. If a carton is used, "Hardware Enclosed" must be clearly communicated in red font. Hardware must be labeled with quantities of each piece, printed on packaging, on attached paper or label and/or within the AI.

- Attach the hardware packaging to a red ribbon/string/twine.
- Secure the hardware packaging inside the carton in a way that will not damage the merchandise while in-transit and that is easy to identify when the carton is opened.
  - If hardware packaging can safely be attached to the product itself, it is encouraged.
- Feed the other end of the string/ribbon through the top flap of the carton and secure to the top or side of the carton (not on a corner), extending no longer than 2.5".
- Label the end of the ribbon/string "Hardware Enclosed" in English and Spanish with red ink or red label background. Secure the end of the red ribbon via tape or sticker.

Replacement Hardware Packaging (RPL)

Replacement hardware is required for all products with hardware, as directed by the Merchant/Sourcing Teams. First shipments require an additional 10% hardware included off initial PO quantity.

- RPLs will require a separate sku# in a master carton with a InforNexus label
- Only one sku# per master carton
- Each hardware set will need an inner label with “Replacement Parts” verbiage and scannable barcode
- RPLs need a master carton quantity of 25
- RPLs need to be loaded last within the container, secured without movement

Container & Truck Loading

Containers and trucks should be properly loaded to maximize the space while assuring none to little movement within the vessel. Master cartons and pallets should be shipped safely following the correct corrugated orientation, marked by Up Arrows and stacking height on the carton. Failure to do so will result in a chargeback of $1,000 per container to the vendor. Column stacking should be followed to maximize stacking strength of cartons. Stacking quantities printed on the carton must be followed. Heavier cartons should be loaded on the bottom, with lighter cartons on top. To maximize loading quantities, the single top layer can be packed with Up Arrows on their sides **if, and only if,** internal packaging structures support both directions of transit, marked with Up Arrows on both directions of the carton.
Container loads should be a minimum of 85% full.
Pallets need to be oriented towards the door, so pallet forks and pallet jacks can enter the pallet for easier unloading. Pallets cannot be shipped on their side or upside down. Blocking

and bracing is required to secure the container or truck load. Shipping pillows, metal bars, strapping are encouraged, to secure non full loads. Interlocked nylon rope is the easiest, most effective material for container bracing and is encouraged. Wood blocking is not permitted. Reusable materials should be considered.

A non-compliance fee of a minimum $1,000 per container will be enforced for inadequate blocking & bracing, and where loads that are identified as unsafe for unloading. Vendors can be held responsible for products that are damaged and be charged the extra labor hours needed to unload an unsafe container or truck.

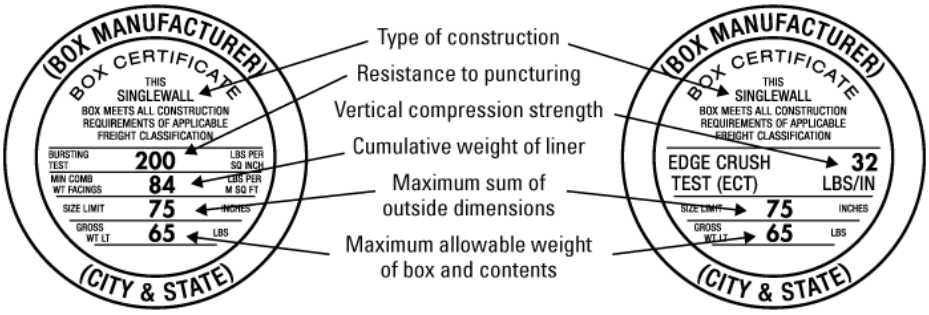
Example of improper carton loading and inadequate blocking & bracing shown below. This imposes a safety risk to both associates and product.

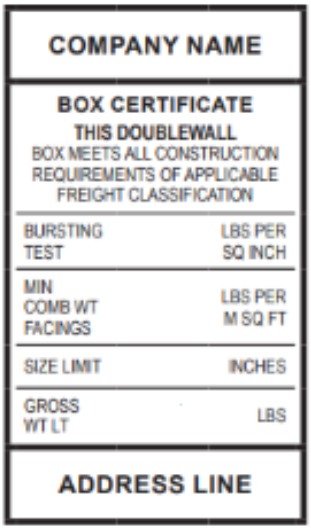
All vendor loaded containers require photos and pallet patterns attached to Nexxus. Instructions in container compliance are located here.

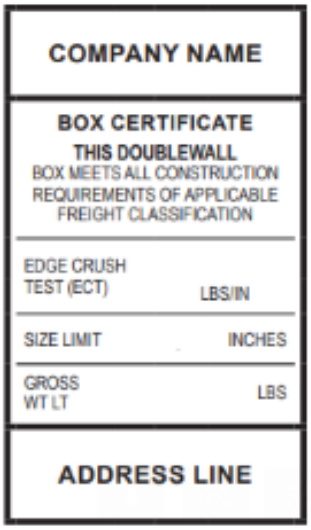
Master Shipping Cartons

The master shipping carton must provide sufficient strength to protect and contain the product and should be properly sized, allowing for no movement due to excess headspace or void space between the product and packaging components. Excess space leads to damage and increased material and transportation costs. To prevent this, minimize excess space to not exceed ¼" within the package; this allows for ease of packing and unpacking the product. The table below will help to outline the specifications required in designing an adequate master carton. All master cartons must have a Box Manufacturer Certification (BMC) stamp providing the ECT or Burst strength of the carton. Vendor's can create their own BMC with their corrugated supplier information, following the same guidelines below.

Below are examples of a BMC stamps:







BMCs must state:

- The name and location of the entity certifying the information.
- The minimum strength material specification being certified (ECT or Burst Strength, and basis weight).
- The gross weight and size limits.
- Must be located on an outside surface.
- Circular BMCs must be 3in in diameter.
- Rectangular BMCs must be 3.5” x 2”.

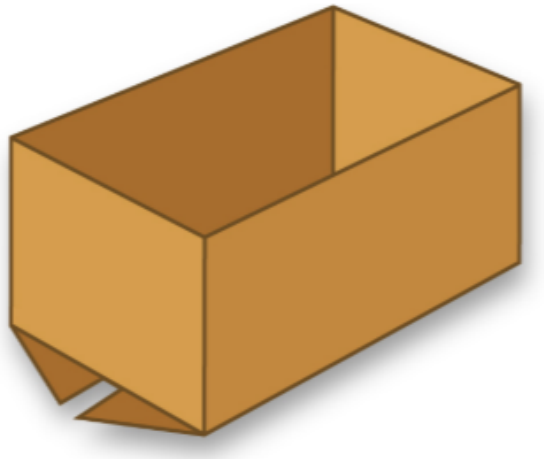
Carton Strength

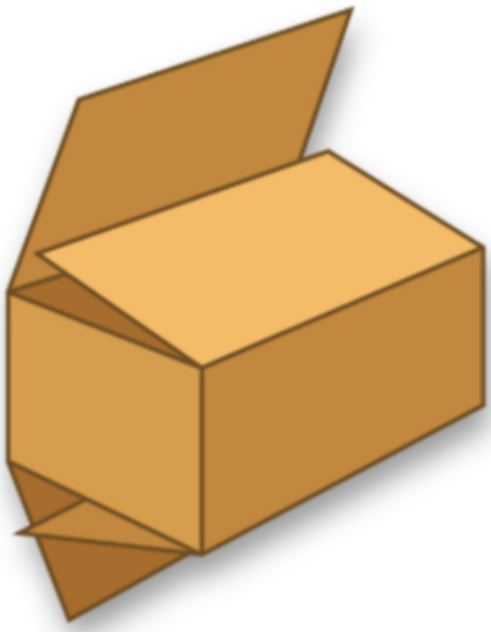
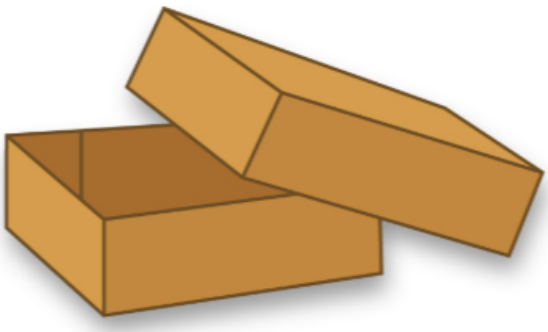
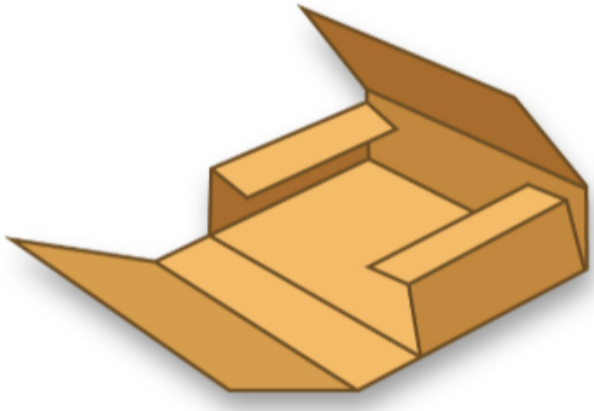
The carton strength must be adequate for the weight and the stacking strength required to support the full weight of the pallet of boxes.
Stacking Strength should be calculated by the vendor to support multi-stacking storage.
The following box strength requirements are based on packaging industry standards. Burst Strength (lbs/in^2, #) and Edge Crush (lbs/in) is accepted as a form of measuring carton strength.

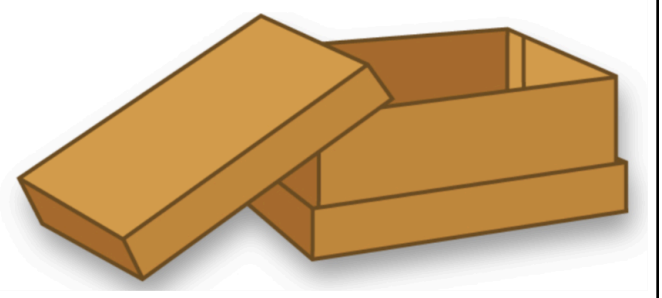
Product Type		Minimum Burst Test	Minimum Edge Crush Test (ECT)	Board Type
Inner Cartons		200 lbs per in^2 14.1 kg per cm^2	32 lbs per in	Single Wall
Textiles, Kitchen, Entertaining, Accessories	Less than 35lbs	150 lbs per in^2 10.5 kg per cm^2	38 lbs per in 6.8 kg per cm	Double Wall
	35lbs - 50lbs	200 lbs per in^2 14.1 kg per cm^2	42 lbs per in 7.5 kg per cm	
	Greater than 50lbs	275 lbs per in^2 19.3 kg per cm^2	48 lbs per in 8.6 kg per cm	
Mirrors, Lighting	Less than 40lbs, 36”	200 lbs per in^2 14.1 kg per cm^2	42 lbs per in 7.5 kg per cm	Double Wall
	Greater than 40lbs, 36”	275 lbs per in^2 19.3 kg per cm^2	48 lbs per in 8.6 kg per cm	
Furniture	Less than 35lbs	200 lbs per in^2 14.1 kg per cm^2	42 lbs per in 7.5 kg per cm	Double Wall
	Greater than 35lbs	275 lbs per in^2 19.3 kg per cm^2	48 lbs per in 8.6 kg per cm	

Acceptable Shipping Container Style

Selecting the correct shipping container style is an important factor to consider during the packaging design process. Changes in design can have a direct effect on the ability to ship efficiently and effectively. Corrugation direction is typically aligned with the stacking orientation and box depth. Requests to use box styles other than the ones listed in this section MUST be approved prior to quoting. Requests should be emailed to the Packaging Department.

RSC Regular Slotted Container (RSC): All flaps have the same length, and the two outer flaps (normally the lengthwise flaps) are one-half the container's width, so that they meet at the center of the box when folded.	
HSC Half Slotted Container (HSC): Similar to a RSC, but only one set of flaps	

Full Overlap (FOL): All flaps have the same length. The outer flaps come within an inch from overlap when closed. Stacked on its side, the extra board provides added stacking strength.	
Full Telescope Design (FTD) with Design Style Tray (DST): This consists of a separate top and bottom tray that fits within each other. This will provide a double layer of doublewall corrugated around the entire perimeter of the container. FTD will require plastic banding. Examples: Headboards and Dining Tables	
One & Five Piece Folder (OPF)(FPF): This consists of a flat bottom with the side and end flaps folding over to meet to close. Examples: Mirrors, Frames, Wall Decor	

Double Cover Container (DCC): This consists of two interchangeable partially telescopic covers, when an HSC could not be easily slid over the top of the product.	

Acceptable Carton Closure Methods

The carton closure used should be adequate to secure the contents and prevent shipment shortages or damages. Please use the guidelines below to select the closure method for your package.

Tape - Clear polypropylene pressure sensitive adhesive and water activated reinforced paper tape are acceptable. Please utilize the taping methods below.

Gross Weight	Tape Width
0 - 30 lbs (0 - 13.6 kg)	2 inches (5.08 cm)
Greater than 30 lbs (13.6 kg)	3 inches (7.62 cm)

- *"H" Method* - Use this method on RSC containers. The "H" taping method is required for any products with a gross weight exceeding 35 pounds and for all furniture items.

- *DSC Method* - Use this method on DSC containers. Tape should first be sealed along the openings at the top and bottom (around the box top and bottom). Additional tape should be applied vertically for reinforcement.

- *FTD Method* - Use this method on FTD style containers. Tape should be sealed horizontally along the opening. Additional tape should be applied vertically over the horizontal tape for reinforcement.

- *FOL Method* - Use this method on FOL style containers. Tape should be applied horizontally along the flaps and reinforced with vertically-applied tape if necessary.

Packaging for Storage at Crate & Barrel

The following considerations should be taken into account as products will be warehoused in any of our main distribution centers. Internal packaging must protect all corners, edges, and faces of the product along with any internal product components, so that the packaged products can move safely through our distribution network.

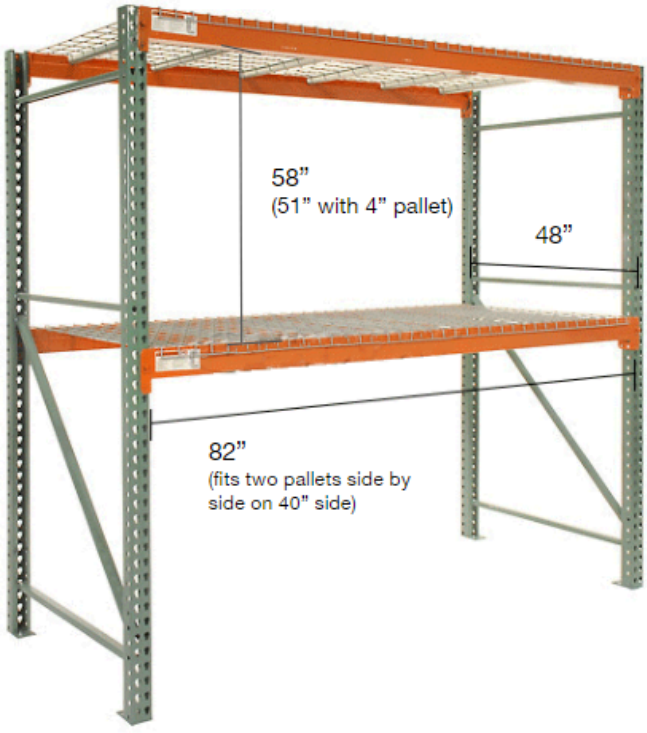
Large, flat, oversized shipping cartons will be stored horizontally on a pallet in the warehouses as shown, with the exception of Marble/Stone Tops and Mirrors. **All cartons under 96” long will be stored flat on a pallet within the warehouse.**

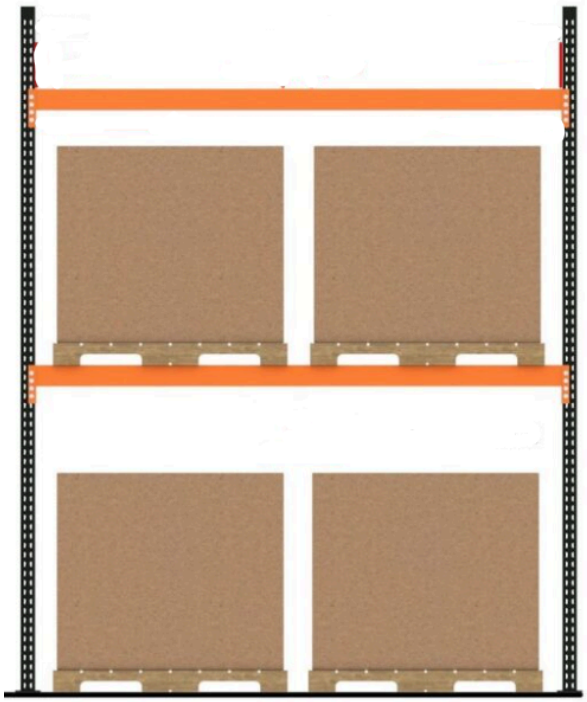
CBH Storage

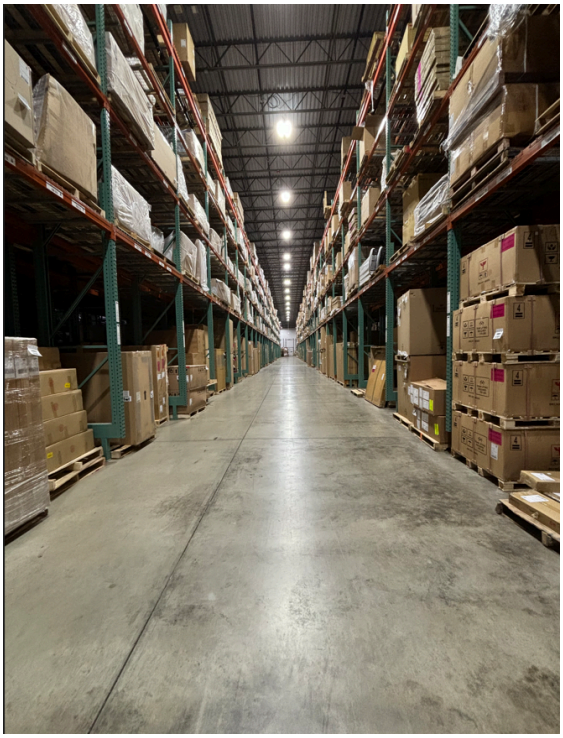
Once product is received at any of our warehouses, the product is placed on a pallet if under 8’ in any dimension. If over 8’, cartons are stacked and stored on warehouse floors, called a “Bulk” area.

All warehouses stock 4’, 6’, and 8’ 4-way wood stringer pallets:

Once product has been cubed out on a pallet, product is stored within our standardized racking. Our racking bays can hold a 8’ x 8’ footprint, with a maximum product height of 51”. Racks are double backed, with one rack dimensions as such:





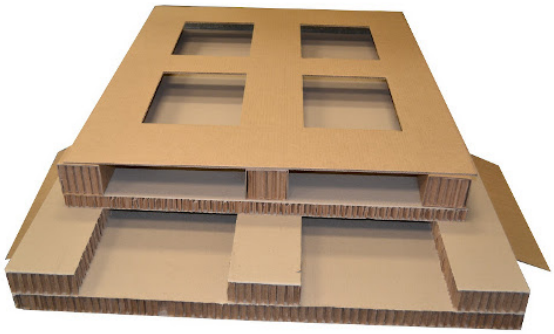


Vendor Pallets

Pallets should be a solid wood 4 way entry for easy forklift and pallet jack maneuvering within the CBH supply chain. Bottom deck boards are required for all pallet types.

Accepted pallet styles:

- Standard 4 Way Entry Stringer Style Pallet (Preferred)
- Solid Deck 4 Way Entry Block Style (Top Deck should be one solid board)
- Non Solid Wood Block 4 Way Entry Block Style (Top Deck should be one solid board)
- Standard 4 Way Entry Paper Pallet (Top Deck should be one solid board)



- All Paper Pallet designs will need approval from the Packaging Department and cannot be a block style pallet.

Wood Screws and Hardened Steel Spiral (Helically Threaded Nail) are the preferred type of fasteners for wood pallets.
Plywood is not an acceptable material for pallet stringers.

Custom Pallets will be required for cartons shipping as singles, weighing greater than 150 lbs.
Categories needing custom pallets: Casegoods, Storage, Fragile Materials.

Stringer Pallet
Standard 4 Way Entry Pallet

Standard 4 Way Entry Top & Bottom Deck Boards - Solid Wood	
Material	Dimensions
Construction Grade Softwoods, MD Hardwoods, Douglas Fir, Southern Yellow Pine, or similar	Thickness: Min 0.63in, Max 1in Width: Min 3in, Max 6in
Board Spacing: Max 3”	
Pallet wood should not have knots, splits, broken or damaged components, hardware protrusion.	

Standard 4 Way Stringers - Solid Wood	
Material	Dimensions
Construction Grade Softwoods, MD Hardwoods, Douglas Fir, Southern Yellow Pine, or similar	Thickness: Min 3.5in, Max 4in Width: Min 1.5in, Max 2in **Stringer Spacing: 24” Max**
Pallet wood should not have knots, splits, broken or damaged components, hardware protrusion. Plywood is not an acceptable material for pallet stringers.	

Block Pallet
Solid Deck–4 Way Entry Pallet

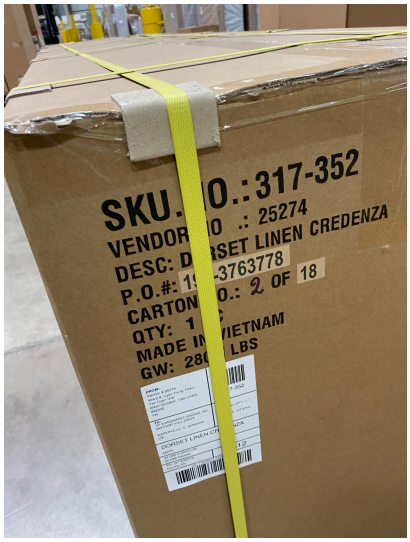
Solid Deck 4 Way Entry Top & Bottom Deck Boards - Solid Wood	
Material	Dimensions
Top Deck: Construction grade plywood, MDF Bottom Deck: Construction Grade Softwoods, MD Hardwoods, Douglas Fir, Southern Yellow Pine, or similar	Top Deck: Plywood Thickness: Min 0.5in, Max 1in MDF Thickness: Min 0.63in, Max 1in Bottom Deck: Thickness: Min 0.63in, Max 1in Width: Min 3.5in, Max 6in
Pallet wood should not have knots, splits, broken or damaged components, hardware protrusion.	

Solid Deck 4 Way Entry Stringers - Solid Wood	
Material	Dimensions
Construction Grade Softwoods, MD Hardwoods, Douglas Fir, Southern Yellow Pine, or similar	Thickness: Min 3.5in, Max 4in Width: Min 1.5in, Max 2in Block Spacing: Min 9in, Max 24”
Pallet wood should not have knots, splits, broken or damaged components, hardware protrusion. Plywood is not an acceptable material for pallet stringers.	

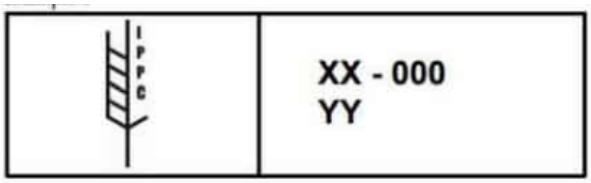
Wood Block 4 Way Entry Top & Bottom Deck Boards - Non Solid Wood	
Material	Dimensions
Top Deck: Construction grade plywood, MDF Bottom Deck: Construction Grade Plywood, MDF	Top Deck: Plywood Thickness: Min 0.5in, Max 1in MDF Thickness: Min 0.63in, Max 1in Bottom Deck: Plywood Thickness: Min 0.5in, Max 1in MDF Thickness: Min 0.75”, Max 1in Block Spacing: Min 9in, Max 24”
Pallet wood should not have knots, splits, broken or damaged components, hardware protrusion.	

Wood Block 4 Way Entry Stringers - Non Solid Wood	
Material	Dimensions
Particle Board, MDF	Thickness: Min 0.5in, Max 1in Width: 4in on short side, 6in on long side
Blocks should be 6” x 4”	
Pallet wood should not have knots, splits, broken or damaged components, hardware protrusion. Plywood is not an acceptable material for pallet stringers.	

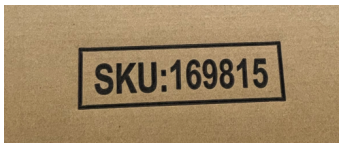
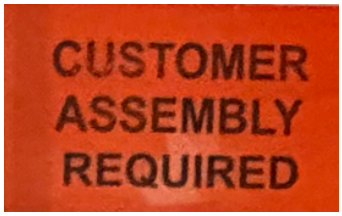
- When using a customized pallet, plastic banding is required with non-plastic edge protectors, like fiberboard or corrugated.

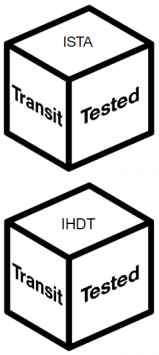


All pallets, regardless of origin, will need appropriate sized wood screws or nails that are counter sunk or flush with the deck board, adhering the stringers to the top deck boards.
All non-domestic pallet wood needs to be Heat Treated and comply with USDA, ISPM15 requirements.
Each Heat Treated pallet needs the IPPC Certification Stamp that includes the country code, treatment provider code, and treatment code printed in black.



Storage and Handling Carton Labels
Icons and verbiage are required, printed in black or red ink. At a minimum, Handling Symbols are required on two minor vertical carton sides. Center the symbols on the carton panel. Symbols should be proportionate to carton size, ranging from 2”x 3” to 4”x 6” for each symbol.

SKU Number		**Required** to be printed on each side panel of the master carton. Size should be proportional to the carton panel, readable from 10’ away
Customer Assembly		**Required,** if applicable, verbiage only
Directional Arrow Symbol	 	**Required** for all master cartons. This arrow will indicate the orientation in which the product should be shipped and stored. Corrugation direction is typically aligned with the stacking orientation and flute direction. If both carton flute direction (FTD, FOL) and internal packaging supports multiple storage orientations, a dual arrow can be used. The proper stacking height needs to be added for each arrow direction. The preferred stacking height should be indicated with a larger arrow.
Fragile Symbol		**Required** for all Furniture and Glass, Ceramic, Mirror, and Lighting Household items.

Stack Height Symbol	 	**Required** for all master cartons. Corrugation direction is typically parallel with the stacking orientation. It is the vendor's responsibility to calculate appropriate safe stacking quantities. Dual stack heights are acceptable with corresponding stack height quantities for each direction, if and only if, the correct carton style (FTD, FOL) is used and internal packaging supports multiple shipping and storage directions.
Team Lift Symbol		**Required** on all master cartons weighing 50 lbs. or more
Transit Tested Symbol		**Use the ISTA Transit Tested vector art**- if the product passed third party transit testing. **Use the CBH vector art provided** - if the product passed in house drop tests. Each PO should reflect the latest, approved testing with the corresponding symbol. **Required** for all master cartons shipping as singles and tested inner cartons. Vendor discretion for IHDT icon on master carton with inners.
No Clamp Truck Symbol		**Required** for all fragile items including marble table tops, mirrors. The Packaging Team may require sku specific requirements of this icon. Cartons with pallets will not be clamped, therefore not required for palleted skus.
Open This End		*Vendor Discretion*

Top Tier Only		**Required** for master cartons who's internal packaging supports a sideways top tier shipping direction only to maximize container load plans.

Vendor discretion on icon symbols used to represent above requirements.
Not limited to the icons shown above, but examples of accepted international Handling Icons.
Carton layouts should be represented in each Packaging Specification.
An example of a compliant carton layout can be seen here:

Products within the carton should be secured so no movement is possible. The maximum amount of void space in any direction should not exceed 1/8". Void space should be considered the space between the edge of the product and the interior wall of the carton. Failure to eliminate void space in cartons will result in a minimum $500 chargeback being issued, as void space can cause stacking instability and lead to damages within our warehouses and distribution center, as well as during transit.

Wooden Crate Specifications

Wooden crates shall be sized to fit the outside dimensions of the corrugated Master Cartons when specified. Use solid, IPPC-certified wood in the construction of any wood crate components. Solid wood shall be IPPC certified and stamped accordingly. Wood joints shall be half-lap or mitered butt; do NOT use the basic butt-style joints as this method provides weak corners and edges. Fasteners shall be #8 or #10 Phillips-head wood screws, with the screw length depending on the size and/or weight of the product. Crate designs should make use of diagonal boards to increase the structure's rigidity. Do not use staples or nails of any kind. Plywood or MDF is not an acceptable crate material for legs. Crate construction needs to be able to stack.

Customized crates need customized 4 way entry pallets, as outlined above, for easy warehouse handling. Crates can be stacked and banned together as shown below, but each crate needs an individual pallet and plastic banding. Stringer pallets are preferred.

Transit Testing

In order to reduce damages during transportation, distribution, handling, and storage, we require certain products to pass a transit test protocol using standards outlined by the International Safe Transit Association (ISTA). Any product shipping one/carton, regardless of weight will require transit testing. Textiles, soft goods, and cartons with inners will not need transit testing.

These laboratory tests focus on four basic types of hazards that occur in distribution:

- Shock
- Vibration
- Compression
- Atmospheric

Test protocols are based on the size and weight of the carton and the type of delivery method being used. Only an ISTA Certified Laboratory can perform these tests for CBH.

Items should be internally tested prior to shipment. Please ensure there is adequate time between transit testing and the ship date to ensure there are no delays. Notify your Merchandising representative if testing will delay ship dates.

We review damage reporting to maintain customer satisfaction. Products with high damage rates will be re-evaluated for packaging structure design and material recommendations and improvements. Packaging and product revisions will require transit retesting to confirm packaging structural changes.

Bureau Veritas (BV) and Intertek (ITK) are our primary independent testing labs for both packaging and quality assurance. We have negotiated price discounts for tests performed at both labs for our vendors. Information regarding the locations, the test request form, and other Crate and Barrel program details can be found at www.bureauveritas.com and www.intertek.com. In addition to BV and Intertek, we will accept transit test reports from other ISTA certified labs; you must confirm with the Packaging team before proceeding with testing.

Our transit-testing requirement is a vendor pay program for Company products. Products are required to be tested by ISTA certified third party testing labs in order to assure compliance with the specified product performance and packaging requirements. The approved test labs will release a copy of the test results to Crate and Barrel. If an item fails testing, the test lab will identify the reason for failure; an item that fails testing must be re-tested until a passing result is received. To ensure testing does not delay shipment, please ensure adequate time between testing and PO ship date. CBH will not be responsible for delayed shipments due to non-compliance.

Before sending product to the testing lab, please ensure the product packaging is in compliance with these guidelines.

Sustainability Goals

All EPS usage is limited to 12% of the carton's total cube. All cushioning materials cannot be taped together with corrugated sheets or pads. Easy packaging material separation while unboxing is encouraged to promote easy recycling of each component at our warehouses and home delivery centers.

Total packaging material cannot exceed 35% of the carton's total cube. All plastics should be PE for easier warehouse recyclability. **Highly recycled packaging materials should be considered.**

Group Testing

At CBH, we allow for "group testing." Group Testing is as follows; collections of the same materials, construction, and manufacturing processes produced in the same factory with multiple colorways can be group tested. Group testing is also applicable for new versions of previously transit tested products such as a sideboard in a new finish or color with an

unexpired transit test report. The product and packaging structure should be the same size and weight as what was previously tested.
Group Testing of different sizes, same construction in the same collection is allowed for the two categories below:

Category	**Size To Be Tested**
Beds & Bed Components	Queen Size
Dining Chairs	Bar Stool Height Size

Knocked down table and table tops are excluded from Group Testing.

When sending items for transit testing, please ensure that the sample is over-boxed; indicate on the outer carton that the test carton is inside and mark the carton to be tested as “Test Carton” or “Test this Carton”. In addition, please attach the test request form on the outside of the carton.

Crate and Barrel reserves the right to use a protocol not listed below if necessary to properly test an item. The Company will require the ISTA 3 Series for all cartons shipping one each per master carton.

Protocol	Description
ISTA 3A Mod	Individual packaged products weighing less than 150 lbs. shipped through a parcel delivery system or Home Delivery
ISTA 3B Mod	Individual packaged products weighing greater than 150 lbs. shipped through a parcel delivery system or Home Delivery

ISTA 3A Modification

This test is for Individual packaged products weighing less than 150 lbs. shipped through a parcel delivery system or Home Delivery. No atmospheric conditioning testing is required, unless requested.

Sequence and drop heights apply to Standard, Flat, and Elongated.

Flat packaged products are defined as such: shortest dimension is 8in (200mm) or less, the next longest dimension is four or more times greater than the shortest dimension, and the volume is 800 in^3 (13,000 cm^3).

Elongated packaged product is defined as such: longest dimension is 36in (900 mm) or greater, with both of the packaging's other dimensions are 20% or less of that of the longest dimension.

Sequence #	Test Category	Test Type	Test Level	For ISTA Certification
1	Atmospheric Preconditioning	Temperature and Humidity	Ambient	By request only
2	Shock	Drop	9 Drops - see chart below	Required
3	Vibration	Random with and without Top Load	Overall G Levels of 0.53 and 0.46	Required
4	Shock	Drop	8 Drops - see chart below	Required

ISTA 3A Drop Heights	
Packaged Product Weight	**Drop Height**
0 - 70 lbs.	18" for drops with 36" for drops 8, 16
71 - 150 lbs.	12" for drops with 24" for drops 8, 16

ISTA 3B Modification

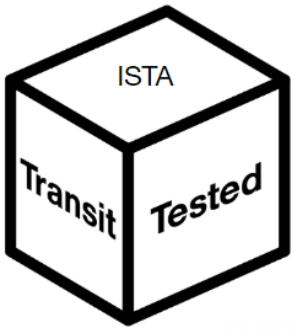
This test is for individual furniture packaged products weighing greater than 150 lbs. shipped through an LTL Delivery Mode or Home Delivery. If the master carton will ship on a pallet that is the same size as the carton footprint, do not test with the pallet. The procedure follows the ISTA 3B Sequences with the modifications. No atmospheric conditioning testing is required, unless requested.

This test is for large items such as, but not limited to; bed frames, dressers, armoires, etc.

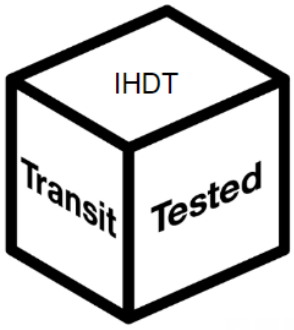
Sequence #	Test Category	Test Type	Test Level	For ISTA Certification
1	Atmospheric Preconditioning	Temperature and Humidity	Ambient	By request only
2	Shock	Tip/Tip Over	Use a 22 degree tip angle	Required
3	Shock	Rotational Drop	Rotational edge and corner drops, 9” (20cm)	Required
4	Shock	Incline or Horizontal Impact	48in/sec (1.2m/sec) impacts or 3in drops	Required
5	Vertical Vibration	Random with Top Load	Overall Grms level of 0.54	Required
6	Shock	Rotational Drop	9in (230 mm) Rotational edge and corner drops	Required
7	Shock	Incline or Horizontal Impact	48in/sec (1.2m/sec) impacts or 3in drops	Required
8	Shock	Full Rotational Drop	1 Drop	Required only for Elongated packages
9	Shock	Bridged Impact	Hazard Box dropped 16in (410mm)	Required only for Elongated packages
10	Shock	Full Rotational Drop	2 Drops	Required only for Flat packages
11	Shock	Concentrated Edge Impact	Hazard box dropped 16in (410mm)	Required only for Flat packages

Transit Tested Icon

All cartons that receive a passing third party transit test report from a certified ISTA lab will require the below icon printed on an applicable carton panel. Required for all master cartons shipping as singles.



All cartons that conduct a Packaging Department approved In House Drop Test will require the below icon printed on an applicable carton panel. This also applies to inner cartons where applicable.



The most recent conducted testing method icon should be used and can vary from POs.

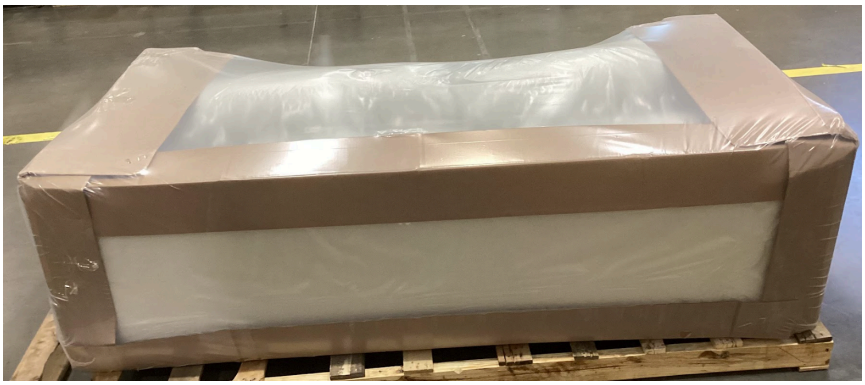
Sofas & Upholstery

Sofas and upholstery need to be packed adequately as to protect the product from damage throughout the entire supply chain from the manufacturing facility to the customer's home. Product movement in all directions needs to be taken into account. Domestic vendors do not need annual transit testing, just an initial one time third party test to validate packaging structures of a collection. Please follow the guidelines below when packaging sofa and upholstery products. This includes, but not limited to: Sofas, Upholstery products (Beds, Benches, Chairs, etc.)

- Surface Protection: All upholstery products need to be fully covered to protect products from tears, snags, dust/dirt, moisture, etc. All upholstered and leather furniture shall be wrapped with a non-woven, non-abrasive material (PET). Minimum thickness of 2oz/yd^2 (70g/m^2). Poly Bags must be free of air holes and fully enclosed around the product.

- Outer Film: All upholstery products need to be fully encapsulated in Polyethylene film (6mil) and film should be properly shrink wrapped (via shrink tunnel or other heat shrinking equipment) to tightly hold the inner bag and corrugated tray to the product.

- Void Fill: All sofas need to be fully secure to assure no movement within the shipper. Void fillers need to be added to the end of sofas to help stabilize the sofa when stored on its end. No empty carton fillers can be placed/rest on velvet and leather material.



- Foam blocks or corrugated triangles or wedges are recommended. Empty cartons with “empty box” verbiage printed can be used for seat void fills in FOL and RSC master cartons. Cross partitions may be added to empty carton for additional strength.

- Legs: Legs should be fully wrapped with a non-woven material (PP, PET) or PE foam sheeting. Minimum thickness of 2oz/yd^2 (70g/m^2). The legs then should be secured into a separate carton for added protection. Cartons need to be labeled with contents. Cartons accepted are doublewall RSC, FOL, FPF.

- Attached Legs: Sofa legs require foam sheeting to protect from abrasion, minimum 0.0625” (1.5mm) thickness. Attached legs should not bear the weight of the load during distribution and storage. Legs need to be protected and cushioned from direct contact with the bottom of the master carton. An additional doublewall corrugated pad can be added to the bottom of the carton for extra support for heavier items.
  Accepted cushioning leg cushion materials: Stacked corrugated layers, EPE/EPS foam blocks, honeycomb.

- Cushions and Pillows: Must be wrapped with a non-woven material (PP, PET). Minimum thickness of 2oz/yd^2 (70g/m^2). Cushions and pillows must be secured within the shipper. If cushions and pillows are packed in a separate packaging within the master carton, that packaging needs to be clearly labeled with contents. Please see the Poly Bag section for requirements.

- Master Cartons: Please refer to the “Master Carton Specifications” for corrugated board requirements. If using an RSC style box, an additional flat pad needs to be added to the top and bottom of the carton to prevent accidental cutting. If using End Caps, the trays must cover both sofa arms and must have a minimum 15% coverage for each arm tray, with base tray and back coverage. Back panels of trays require one horizontal hole handle, approximately three quarters up from one end.

Cartons accepted: FOL, RSC, End Caps with Base Tray.

Product	Required Carton Style
Less than 75lbs.	RSC
Greater than 75lbs.	FOL, FPF, or FTD with DST

Case Goods

Case goods need to be packed adequately as to protect the product from damage throughout the entire supply chain from the manufacturing facility to the customer's home. Product movement in all directions needs to be taken into account. Please follow the guidelines below when packaging case goods. This includes, but not limited to: Cabinets, Dressers, Storage, Media, Bookcases, Desks, Nightstands, Assembled Tables.

- Surface Protection: All case good products need to be fully covered to protect the product from dents, scratches, dust/dirt, moisture, etc. Case goods need to be wrapped with a non-woven material (PP, PE) or PE foam sheeting. Minimum thickness of 2oz/yd^2 (70g/m^2).

- Corner Protection: All corners of the product must be protected using approved cushioning materials. Cushioning must be sufficient for the size and weight of the product. Please follow the general guidelines for cushion thickness on the next page. (NOTE: If handles or other ornamental pieces extend beyond the profile of the frame this is considered the outermost finished surface).

- Edge Protection: It is recommended that 50% of any given length of the edges be covered with protective material. Edge protection is required on any edge greater than 12". Please refer to the cushion thickness chart below for thickness requirements.

Packaged Product Weight	Edge & Corner Cushion Thickness	Edge Foam Density	Corner Foam Density
Under 75lbs.	Minimum 1.5"	Minimum 10 kg/m^3	Minimum 16 kg/m^3
75lbs - 150lbs.	Minimum 1.5"	Minimum 12 kg/m^3	Minimum 16 kg/m^3
Over 150lbs.	Minimum 1.5"	Minimum 12 kg/m^3	Minimum 20 kg/m^3

- Attached Legs: All case good legs require foam sheeting to protect from abrasion, minimum 0.0625" (1.5mm) thickness. Attached legs should not bear the weight of the load during distribution and storage. Legs need to be protected and cushioned from direct contact with the bottom of the master carton. An additional doublewall corrugated pad can be added to the bottom of the carton for extra support for heavier items.
  Accepted cushioning leg cushion materials: Corrugated U Boards as shown below, Stacked corrugated layers, EPS/EPE foam blocks.



- Doors, Drawers & Glass: Glass, doors, and drawer surfaces must be protected with foam sheeting to protect from abrasion, minimum 0.0625" (1.5mm) thickness. Drawers need additional foam sheeting between drawer and base of product in case drawers and doors open during shipment. Adding a corrugated wrap, shown to the right, is suggested to keep doors and drawers shut.


- Shelves: All case goods shelves need to be protected with foam sheeting to protect from abrasion, with a minimum 0.0625" (1.5mm) thickness, then encased in a corrugated box or sleeve. All loose items must be firmly secured in place within the master carton, within the product if it can be secured with no movement, or on top of the product, secured with no movement.

- Hardware*:* Pulls and knobs need surface abrasion protection. Please refer to the "Hardware" section of this document for information on how to properly pack and label all loose hardware components.

- Void Fill: All case goods need to be fully secure to assure no movement within the shipper. Large void areas with more than 12" of empty space require void fill packaging. Blocking and bracing materials accepted: Corrugated multi-layer pads, honeycomb, empty cartons with "empty box" verbiage printed, EPE, EPS.

- Master Cartons: Please refer to the "Master Carton Specifications" for corrugated board requirements. If using an RSC style box, an additional flat pad needs to be added to the top and bottom of the carton to prevent accidental cutting. If using a DCC, a plywood frame is needed on top of the product for extra protection. The following box styles should be used based on product weight:

Product	**Required Carton Style**
Less than 75lbs.	RSC
Greater than 75lbs.	FOL or FTD with DST

Tables

Knocked Down Table Tops

Table Tops need to be packed adequately as to protect the product from damage throughout the entire supply chain from the manufacturing facility to the customer's home. Product movement in all directions needs to be taken into account. Please follow the guidelines below when packaging table tops. This includes, but not limited to: Coffee tables, dining tables, desks, end tables.

- Surface Protection: All table tops need to be fully covered to protect product from dents, scratches, dust/dirt, moisture, etc. Table tops need to be wrapped with a non-woven material (PP, PET) or PE foam sheeting. Minimum thickness of 2oz/yd^2 (70g/m^2). This applies to table top extension pieces.

- Corner Protection: All corners of the product must be protected using approved cushioning materials. Cushioning must be sufficient for the size and weight of the product. Please

follow the general guidelines for cushion thickness on the next page, unless cushioning material selected was lab tested and performance can be proven.

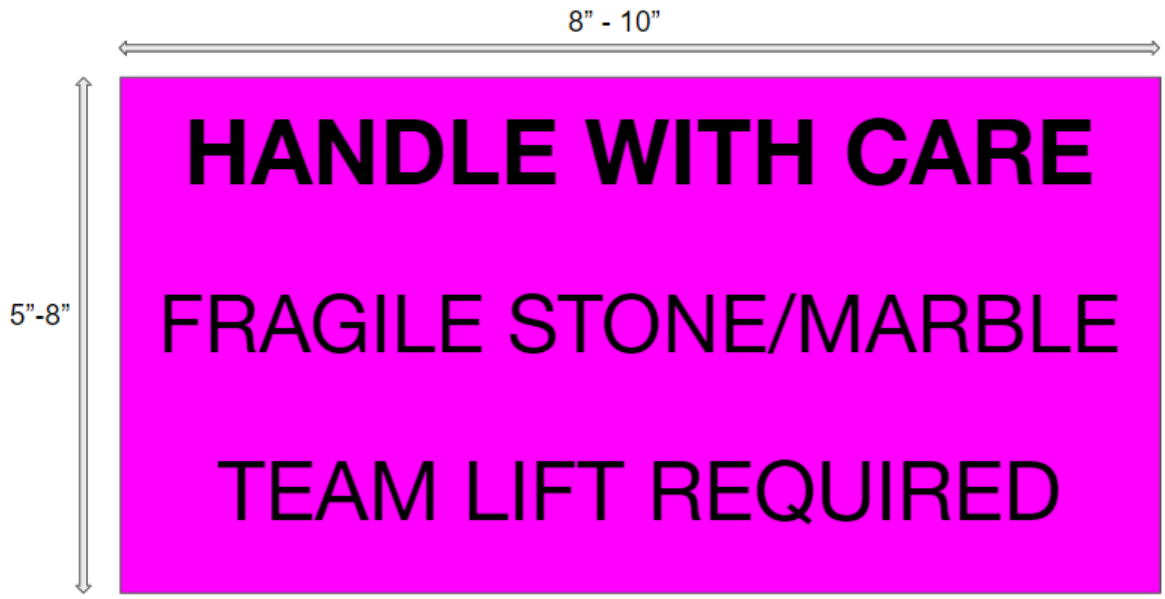
Packaged Product Weight	Edge & Corner Cushion Thickness	Edge Foam Density	Corner Foam Density
Under 75lbs.	Minimum 1.5”	Minimum 10 kg/m^3	Minimum 16 kg/m^3
75lbs - 150lbs.	Minimum 1.5”	Minimum 12 kg/m^3	Minimum 16 kg/m^3
Over 150lbs.	Minimum 1.5”	Minimum 12 kg/m^3	Minimum 20 kg/m^3

- Round Tables must be suspended from the carton walls by use of triangle shaped cushions or cushions that contour to the shape of the table. Cushioning must be the same height as the table top so that there is no opportunity for the table to slip above or below the cushioning. Layered corrugated pads or honeycomb is suggested.

- Marble/Stone/Glass/Fragile Table Tops: will require palleted wooden crates to keep fragile tops vertical during transit and storage within CBH Supply Chain. Crates should have a 4 way entry pallet. A table top can ship as a single palleted crate or with multiple table tops. Each sku will require an individual UCC label on each carton, with master carton quantity of 1.
- Up Arrows need to align with vertical storage
  - All marble/stone require “No Clamp Truck” icon - follow requirements in the Storage and Handling Carton Labels section
  - Use the below label:

Label Requirement

Label Color: Bright Pink
Ink: Black
Size: Vendor Discretion
Location: All 4 vertical carton panels
What: Table Tops and Casegoods with fragile stone/marble/ travertine/ cement/plaster



CBH material handling equipment can hold a pallet load of up to 5,000lbs. Please maximize crated quantities and weight to this limitation.

Below crate styles are **required** ways to ship fragile stone, marble/stone table tops, and mirrors.

- Each carton needs to be banded separately to the pallet or metal/wood support as shown if shipping multiple cartons on a pallet.If one table top carton is pulled from the crate, the load needs to be secured so all remaining tops remain vertical and not leaning.
- Single carton crates must include palleted feet for supply chain handling.


FREEDOM


SKU NO. 337879


DO NO CUT UNTIL
YOU WAN TO RELEASE
CARTON ROM PALLET

- Edge Protection: It is recommended that 75% of any given length of the edges be covered with protective material. Edge protection is required on any edge greater than 12". Please refer to the cushion thickness chart below for thickness requirements.

Packaged Product Weight	Edge & Corner Cushion Thickness	Edge Foam Density	Corner Foam Density
Under 75lbs.	Minimum 1.5"	Minimum 10 kg/m^3	Minimum 16 kg/m^3
75lbs - 150lbs.	Minimum 1.5"	Minimum 12 kg/m^3	Minimum 16 kg/m^3
Over 150lbs.	Minimum 1.5"	Minimum 12 kg/m^3	Minimum 20 kg/m^3

- Table Legs: Legs should be fully wrapped with a non-woven material (PP, PET) or PE foam sheeting. Minimum thickness of 2oz/yd^2 (70g/m^2). The legs then should be secured into a separate carton for added protection. Cartons need to be labeled with contents. Cartons accepted are doublewall RSC, FOL, FPF.

- Void Fill: All table tops need to be fully secure to assure no movement within the shipper. Large void areas with more than 12" of empty space require void fill packaging. Blocking and bracing materials accepted: Corrugated multi-layer pads, honeycomb, empty cartons with "empty box" verbiage printed, EPE, EPS. Cross partitions may be added to empty carton for additional strength.

- Master Cartons: Please refer to the "Master Carton Specifications" for corrugated board requirements. Carton Style: FTD carton is required for all table tops.

Chairs

All chairs need to be encased fully in a corrugated master carton due to warehouse storage limitations. All chairs must be protected from surface damage with a non-abrasive material such as foam sheeting, a min 2mil poly bag, or kraft paper (for non upholstered chairs). This includes Home Office Chairs, Dining Seating, Outdoor Seating, Upholstered Chairs.

Single Chairs

- Top Back of the Chair: Use cushioning material, min 1.5”, such as corrugated U-board, honeycomb, or EPE to protect the chair back.

- Top Edges/Rail of Chair & Arms: Use cushioning material, min 1.5”, such as multi-wall corrugated board, EPE foam blocks to prevent side impacts.

- Chair Seats: Chairs constructed of velour type fabric (velvet, micro fiber, etc.) are prone to fabric damage from compression. It is not advisable to cover with bubble wrap as the pattern may transfer to the fabric under compression. Do not use an empty carton for chair seats with velvet fabric.

- Chair Legs: Cushion all chair legs a minimum of 1.5” from the bottom of the master carton. Corrugated U boards (as shown), stacked corrugated boards, padded corrugated trays, or EPS/EPE foam blocks (as shown) should be used.

- Void Fill: Individual chairs need a void fill placed on the seat of the chair. A carton with “empty box” verbiage printed can be used for seat void fills, except for velvet and leather covered chairs.

- Hardware*:* Please refer to the “Hardware” section of this document for information on how to properly pack and label all loose hardware components.
- Cushions and Pillows: Must be wrapped with a non-woven material (PP, PET). Minimum thickness of 2oz/yd^2 (70g/m^2). Cushions and pillows must be secured within the shipper. If shipping within an inner carton in the master carton, box should be clearly marked with “Cushions Inside”. Please refer to the Poly Bag section if this encasement is being used.
- Master Cartons: Please refer to the “Master Carton Specifications” for corrugated board requirements. Carton Style: RSC or FOL carton is required.

If an “L” shaped carton is being used, internal packaging needs to support a nested and well cubed master carton to better load a container. A dual arrow needs to be printed on the carton for this shaped carton.

Chair Pairs

- Chairs packed in quantities of two should mimic single chair pack outs. Additional protection is needed between the inverted chairs. **Corrugated flat pads protecting the chair back, seat, and legs from the second chair is needed.** Depending on the type of chair, two can be stacked or inverted.

- If the height of the seat back (measured from the seat cushion) is greater than the height of the leg use a suspension box between the seats. The suspension box will lift the top of the inverted chair so that it is protected from the master carton. The stacked chairs need to form a rectangular shape – with the legs on the first chair even to the back of the second chair (that way the load is evenly distributed). Recommended construction of the suspension box: corrugated carton, corrugated board/pads, molded pulp, or honeycomb.

Mattresses

All mattresses must be protected from surface damage with two 6mil minimum poly bags. Similar to Sofas, mattresses require end cap trays for handling and storage.

- Heat sealed closure required
- Contain clay desiccant packs within the sealed poly bag to prevent moisture

Beds & Bed Components

Beds and Bed Components need to be packed adequately as to protect the product from damage throughout the entire supply chain from the manufacturing facility to the customer's home. Product movement in all directions needs to be taken into account. Please follow the guidelines below when packaging beds and bed components. This includes, but not limited to: Platform Beds, Headboards, Trundles, Day Beds, Storage Beds, Loft Beds, Kids Beds, Cribs. When shipping bed and bed components separately, the cartons must be marked "carton x of x" when multiple boxes apply.

- Surface Protection: All bed components need to be fully covered to protect the product from dents, scratches, dust/dirt, moisture, etc. Bed components need to be wrapped with a non-woven material (PP, PET), PE foam sheeting, PE poly bag or non-abrasive kraft paper.

- Packaging Protection: All bed products need to be secure and separated from other components within the shipper. Corners and edges must be protected with a minimum 1.5" thickness, with a minimum 50% coverage of the below materials. Impact packaging materials accepted: Corrugated multi layer pads, honeycomb, EPE.

Packaged Product Weight	Edge & Corner Cushion Thickness	Edge Foam Density	Corner Foam Density
Under 75lbs.	Minimum 1.5”	Minimum 10 kg/m^3	Minimum 16 kg/m^3
75lbs - 150lbs.	Minimum 1.5”	Minimum 12 kg/m^3	Minimum 16 kg/m^3
Over 150lbs.	Minimum 1.5”	Minimum 12 kg/m^3	Minimum 20 kg/m^3

- Void Fill: All bed products need to be fully secure to assure no movement within the shipper. Large void areas with more than 12” of empty space require void fill packaging. Blocking and bracing materials accepted: Corrugated multi-layer pads, honeycomb, MDF wood, empty cartons with “empty box” verbiage printed. Cross partitions may be added to empty carton for additional strength.

- Slats: All bedding slats should be protected within an inner carton and clearly labeled of components.

- Attached Legs: All bed legs require foam sheeting to protect from abrasion, minimum 0.0625” (1.5mm) thickness. Legs need to be protected and cushioned from direct contact with the bottom of the master carton. We suggest suspending the legs a minimum 1.5” off of the master carton. Accepted suspended leg cushion materials: Corrugated U boards, stacked corrugated boards, padded corrugated trays, or EPE foam blocks should be used.

- Storage Bed Drawers: Drawer surfaces must be protected with foam sheeting to protect from abrasion, minimum 0.0625” (1.5mm) thickness. Drawers need additional foam sheeting between drawer and base of product to prevent drawer opening during shipment.

- Master Cartons: Please refer to the “Master Carton Specifications” for corrugated board requirements. If using an RSC style box, an additional flat pad needs to be added to the top and bottom of the carton to prevent accidental cutting. If using a DCC, a plywood frame is needed on top of the product for extra protection. FTD, DCC cartons required. Beds will ship and store flat and do not require a pallet.