



## LUCID MOTORS SUPPLIER PACKAGING GUIDELINES

Rev 3.0

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## VERSION RELEASE NOTES

- **Version 1.00:** Released 2/15/20. First version of guidelines
- **Version 1.51:** Released 6/2/20. Updated LMI Sizing Chart, contact information, and clarified backup expendable for airfreight.
- **Version 1.60:** Released 7/29/20. Overhauled label format. Updated PDF 417 coding, added 1J Series to Master label.
- **Version 1.70:** Released 9/02/20. Comments Added to the labeling data field table. Manufacturing date status changed from required to optional. Master label requirement changed on mixed pallet.
- **Version 1.80:** Released 11/30/20. Release Number Definition/Example added. Data identifier for Mixed Load changed from 6J to 5J. Shipping label email ID added.
- **Version 1.90:** Updated pdf 417 coding, Added SHIPID #/ASN # as REQUIRED for all labels (Single, Master and Mixed Label). Added pdf 417 barcode to Mixed Load label. Changed Part Number font size from 28 to 26.
- **Version 2.0:** Released 12/6/21. Service parts packaging section added. New requirements for pallet and wooden crate construction. New naming convention for standard containers (LMD/LMI). Additional information on packaging testing and acceptable test methods. New section for shipping and load preparation containing many new topics (Preparing orders less than MOQ, Pallet stacking, Air freight shipments, Hand carry shipments, etc.). Packaging deviation process. Labeling Requirement changes: Addition of 12D Data Identifier for single carton label.
- **Version 3.0:** Released 05/23/22. Removed labeling barcode content, and EDI information which will be managed in a separate document (Page 38). Introduced new labeling placement requirements for suppliers using returnable packaging (Page 41). Additional supplier responsibility notes added (Page 4). Added Max stack height labeling requirement for all shipments (Page 29). Updated pallet deck board thickness requirements (Page 12). Added information on Lucid box print artwork (Page 20).

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# 1. INTRODUCTION

This document is intended to define packaging, labeling, and shipping requirements at the technical level. It is also intended to provide a clear framework for the relevant business processes, from quotation to production.

The first section covers higher-level process, with timelines and cross-functional mapping. The remaining sections cover technical requirements.

LUCID is concerned with the safe movement of material, part quality, control of total costs, and compliance to regulations. Each SUPPLIER shall develop its packaging to meet the basic requirements in this document and ensure part quality to point of use. If the requirements in this document are not met, or part quality is compromised, SUPPLIERS will be held responsible for costs related to repack, relabeling, inspection, and/or freight. Please see section on SCAR for more information.

## Goals of Packaging Design

1. The safe delivery of parts to LUCID that meet our quality standards.
2. Packaging is compliant with LUCID carton and pallet standards.
3. Packaging is manufactured using materials sufficient to withstand all modes of transportation without being compromised.
4. Parts are presented with consideration for operator ergonomics.
5. Packaging achieves 90% volumetric density utilization within the truck or container.
6. Packaging Utilizes the most cost-effective materials for the packaging design.
7. Packaging uses recyclable materials whenever possible to limit the environmental impact.

## Definitions of Parties and Terms

- SUPPLIER: Refers in general terms to the Supplier or Supplier Employees
- LUCID: Refers in general terms to Lucid Motors, Inc. (hereby "LUCID") or LUCID Employees
- LUCID GSM: Refers to the relevant LUCID Global Supply Chain Management contact
- LUCID PACKAGING: Refers to the LUCID Packaging Engineer
- LMD: Abbreviation for Lucid Motors Domestic
- LMI: Abbreviation for Lucid Motors Intercontinental

## SUPPLIER Responsibility/Liability

In advance of mass production, it is expected that the SUPPLIER will:

- Review this document in full to ensure the requirements are understood.
- Submit packaging design & specifications with the [Lucid Packaging Data Submission Form \(PDS\)](#) to LUCID PACKAGING for critical feedback and final approval.
- If critical feedback is provided, rectify the feedback until compliant and approved.
- Conduct package performance testing as needed (either field test or laboratory analysis) and submit test results upon request ([PKG testing Procedures](#)).
- Even after the tests have been carried out, and the packaging has been validated successfully. The parts supplier still has the responsibility to ensure the damage-free delivery of the parts via all forms of delivery and transport
- If quality issues are discovered due to inadequate packaging, we expect our suppliers to act quickly with a sense of urgency to implement overprotective temporary counter measures until the design is revised. Suppliers will be responsible for the cost of any temporary countermeasures unless the design was provided by Lucid specifically.
- If LUCID requires an emergency shipment of parts due to a supplier mistake (e.g. incorrect part number delivery or parts are unsuitable for assembly due to inadequate packaging etc.), all additional costs shall be borne by the supplier (e.g. Including flight costs, trip to the airport, additional handling and material costs)
- LUCID may request a packaging design change to address a quality issue, or general resizing to accommodate lineside space constraints. Lucid expects our suppliers to work with us quickly and diligently on these types of requests.

*During mass production, it is expected that the SUPPLIER will:*

- Ship parts in approved packaging with approved labels.
- Build unitized loads and ship them according to guidance in this document.

Failure to meet these expectations or deviations thereof may result in a SCAR. Please see the packaging compliance section for more information. LUCID may adjust these requirements in future versions of this document.

## LUCID PACKAGING Expectations

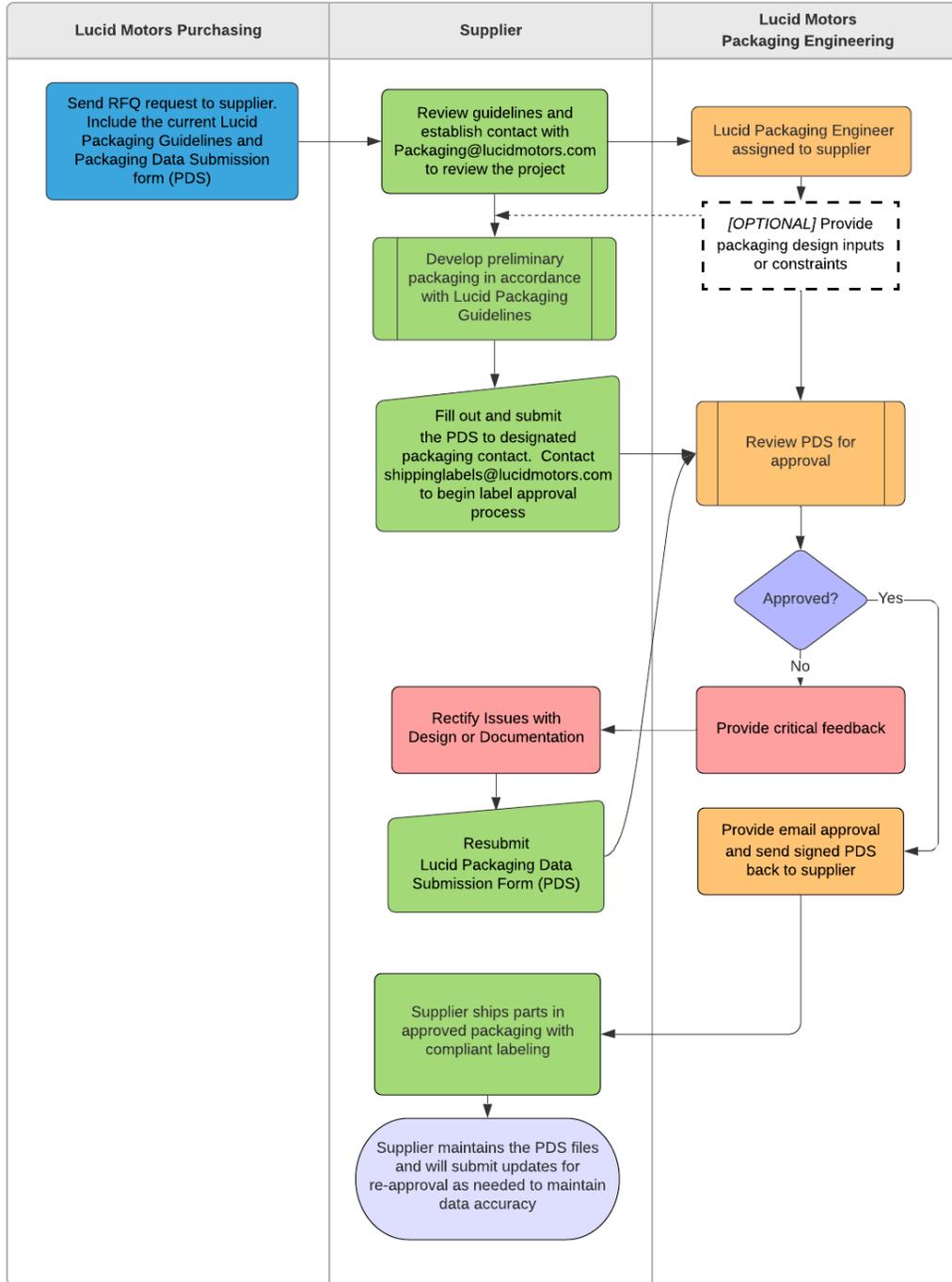
*It is expected that LUCID PACKAGING will:*

- Assist SUPPLIER with any package design questions or any inputs from LUCID.
- Assist SUPPLIER with any process questions, regarding timing, forms or other handoffs.
- Review and provide SUPPLIER with approvals or critical feedback to achieve compliance.
- When applicable, design and deliver returnable packaging solutions.

## Service Parts Packaging

At this time the LUCID SERVICE packaging should match or mirror those of Lucid mass production. If special packaging is necessary LUCID PACKAGING will notify the SUPPLIER to develop a service packaging that meets our requirements. Contact [MichaelMarples@lucidmotors.com](mailto:MichaelMarples@lucidmotors.com) for any service packaging related questions.

## Packaging Approval Process Flow



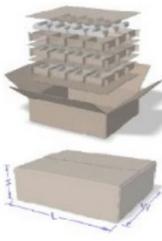
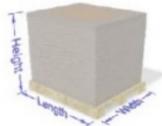
### Note on Packaging Cost

A full breakdown of packaging cost should be provided to your LUCID GSM during the quotation phase. The approval of the concept from the LUCID PACKAGING group is NOT the explicit approval of the packaging cost for the concept.

## Packaging Submission Form (PDS)

For a copy of this form see link in section 7 or contact [Packaging@lucidmotors.com](mailto:Packaging@lucidmotors.com)

- The LUCID PDS is the official packaging plan of record. All parts shipping to Lucid must have an accurate, approved PDS on file. Parts received not matching the PDS are subject to a SCAR and fines.
- Suppliers are required to submit a PDS for all Tier 1 parts shipping directly to Lucid. Lucid does not require a PDS for Tier 2 or directed buy parts. Packaging for these parts should be reviewed with the tier 1 supplier they are shipping to.
- The PDS form should be submitted to your assigned packaging contact, or [packaging@lucidmotors.com](mailto:packaging@lucidmotors.com) if unknown. Additional details on how to fill out the form are available in the "PDS Example" tab within the form itself.
- The PDS must be reviewed/approved by your assigned Lucid Packaging contact before parts are shipped.
- Suppliers are required to update and resubmit the PDS if changes/updates are needed.

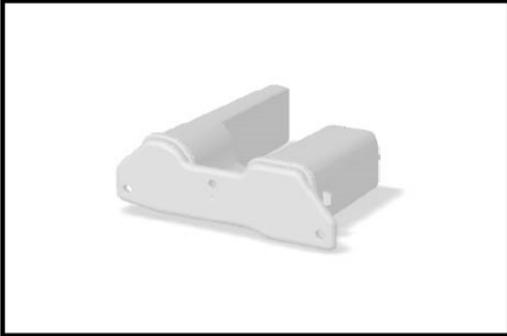
Lucid Motors Packaging Data Submission Form (PDS) (Rev 2.1)		LUCID	
Note: Asterisk ( *) denotes required fields		PDS Submission Date*	<input type="text"/>
		PKG Implementation Date (Est)*	<input type="text"/>
		Choose Input Unit of Measure*	<input type="text" value="in/lbs"/>
<b>Supplier Information</b>			
Supplier Name*	<input type="text"/>	Supplier Number	<input type="text"/>
<b>Form Initiator Information</b>		Ship From Location*	<input type="text"/>
Contact Name*	<input type="text"/>	Phone Number	<input type="text"/>
Contact Email*	<input type="text"/>		
<b>Part Information</b> <small>Note: Dimensions refer to part in "shipping position", i.e. bundled and bagged, not "CAD position"</small>			
Lucid Part Number *	<input type="text"/>	Part Description *	<input type="text"/>
Part Length (x)*	<input type="text"/> in	Purchase (UM)*	<input type="text"/>
Part Width (y)*	<input type="text"/> in	Class A surfaces?	<input type="text"/>
Part Height (z)*	<input type="text"/> in	Note:	<input type="text"/>
Part Weight*	<input type="text"/> lbs		
<b>Primary Packaging Information (Master Carton / Smallest sendable Unit)</b>			
This packaging applies to parts shipping for * <input type="checkbox"/> RC <input checked="" type="checkbox"/> SOP			
Length*	<input type="text"/> in	Type of Carton *	<input type="text"/>
Width*	<input type="text"/> in	Flute Size	<input type="text"/>
Height*	<input type="text"/> in	Board Strength (ECT, Mullen)	<input type="text"/>
Parts/Carton*	<input type="text"/>	Lucid Carton Name	<input type="text"/>
Box+Dunnage Tare*	<input type="text"/> lbs	Ex. 32ECT C flute	<input type="text"/>
Total Weight (calc)	0.0 lbs	Dunnage Material Spec 1	<input type="text"/>
Type of Dunnage 1*	<input type="text"/>	Dunnage Material Spec 2	<input type="text"/>
Type of Dunnage 2*	<input type="text"/>		
<b>Describe the Packaging solution</b>			
<input type="text"/>			
<b>Unit Load Packaging Information</b>			
Load Length*	<input type="text"/> in	Cartons per Layer*	<input type="text"/>
Load Width*	<input type="text"/> in	Layers Per Pallet*	<input type="text"/>
Load Height*	<input type="text"/> in	Cartons/Load (Calc)	0
Pallet Tare Weight*	<input type="text"/> lbs	Parts/Load (Calc)	0
Total Load Weight (Calc)	0.0 lbs		
Packaging Validation Method*	<input type="text"/>	Other	<input type="text"/>
Load secured with (Select)	<input type="text"/>		
Expected Transit Mode	<input type="text"/>	# of Unit Loads	<input type="text"/>
Max Dynamic Stack Height*	In Transit <input type="checkbox"/>	In Storage <input type="checkbox"/>	
Additional Notes:	<input type="text"/>		

## Lucid Motors Packaging Data Submission Form - Page Two

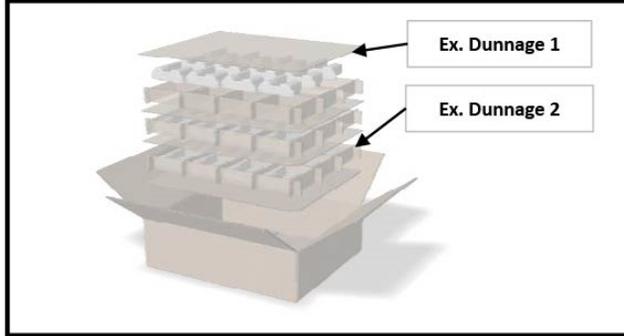


*Pictures are required for approval. Detailed 3D renderings are acceptable*

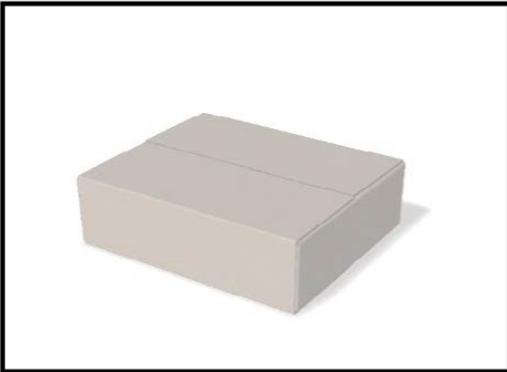
**Picture of Part**



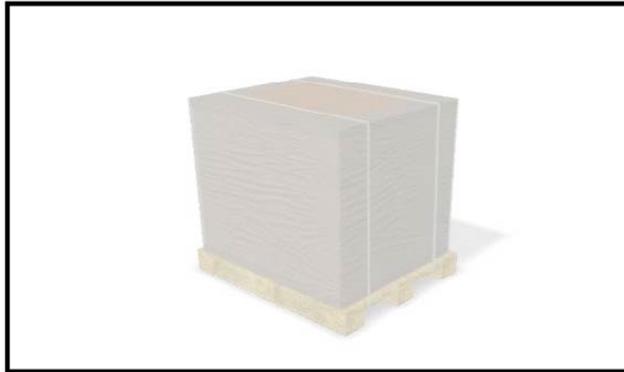
**Picture of Primary Pack with dunnage**



**Picture of Primary Pack Exterior**



**Picture of Unitized Load**



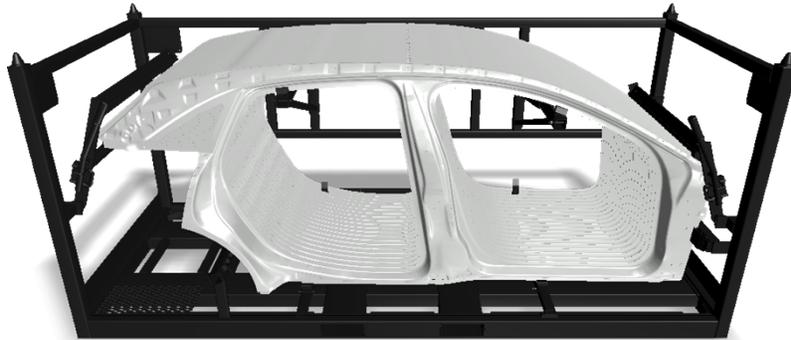
Initial Approval Date	<input style="width: 90%;" type="text"/>	Signature:
Lucid Packaging Engineer	<input style="width: 90%;" type="text"/>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>

PDS Change Log / PDS Revision Approval			
Change Date	Change Description	Lucid Approval	
		Initial	Date

PDS REVISIONS: Suppliers please fill in the purple fields above only when submitting PDS revisions.  
 Regardless of LUCID PACKAGING'S approval status for a particular component, the SUPPLIER will maintain responsibility for packaging performance and part integrity (applies to all supplier-led packaging designs).

## Returnable Packaging Policy

- Before returnable packaging is considered all components are required to have fully costed and optimized expendable packaging proposals that meet LUCID's packaging design and use requirements (no exceptions permitted).
- LUCID reserves the right to review expendable packaging designs against alternative returnable packaging solutions that enable cost or performance improvements.
- If a returnable/durable packaging solution is deemed beneficial, LUCID PACKAGING will work in cooperation with the SUPPLIER to deliver financial and design proposals that facilitate a packaging change.
- LUCID'S primary strategy is to own all returnable/durable packaging fleets. These fleets are to be used solely in support of LUCID activities. In the event of a returnable/durable packaging program launch, the supplier will be expected to comply with the 'Lucid Motors Container Management Supplier Guidelines'.
- LUCID'S container management guidelines can be requested by emailing [CMS@lucidmotors.com](mailto:CMS@lucidmotors.com)



## 2. PACKAGING DEVELOPMENT & TECHNICAL REQUIREMENTS

LUCID requires the SUPPLIER to develop and/or utilize packaging that aligns with the dimensional and performance characteristics defined in this section. If a deviation is desired or required, please contact LUCID PACKAGING at [Packaging@lucidmotors.com](mailto:Packaging@lucidmotors.com).

If the LUCID Packaging group is independently generating a concept packaging design for special parts (overly large, or heavy), SUPPLIER will be informed. The packaging design will be developed cooperatively to satisfy requirements at both sites.

### Pallet and Carton Series Selection

The chart below indicates which footprint and carton series to use.

SUPPLIER Location	Pallet Footprint	Cartons Series	Mode of Transport	Picture of Transport Mode
United States, Canada, Mexico	48" x 45"	<b>LMD</b> (Domestic)	53' Trailer →	
APAC, Europe, South America	1140 mm x 980 mm	<b>LMI</b> (International)	ISO Container →	

### General Packaging Design Requirements

#### Standard Pallet/Footprint Sizes

- 48"x45"- for North American origin shipments. See [Drawing 2.5](#) for specification and requirements. See [Table 2.1](#) for LMD Series of cartons.
- 1140mm x 980mm- for Intercontinental shipments. See [Drawing 2.6](#) for specification and requirements. See [Table 2.2](#) for LMI Series of cartons.
- 32"x30"- alternate size for fastener shipments.
- Stacking requirements: See Section 4- Pallet stacking requirements
- Alternate sizes to be approved by LUCID PACKAGING on an exception basis through the PDS.
- Alternate sizes are still subject to the requirements in section "Pallet Construction Requirements"

## Handheld Carton Design and Sizes

- LUCID standard cartons are designed to be modular with our standard pallet footprints 48" x 45" Pallet for LMD Series, [Table 2.1](#)) and 1140 mm x 980 mm pallet footprints (LMI Series, [Table 2.2](#)).
- Fasteners can be shipped in industry standard 9"x9" cartons with variable heights.
- Carton Style: The following are acceptable: RSC, HSC with common layer lid (provided OD matches standard).
- Carton Height: LUCID has targeted maximum unit load (pallet load) heights of **52.5"** (2 pallets loads high) and 35" (3 pallets loads high) for North American domestic shipments. For Intercontinental shipments, the targeted maximum unit load height is **49"** (1244mm) for double stack in a high cube container. Individual carton heights are sized with the intent of being modular to these targets.
- Weight Limit: LUCID handheld container weight limit is **30 lbs** (13.6 kg).
- Staples: Wet strength adhesives only, no staples on handheld boxes unless permission is granted.

## "Right Size" Package Design

LUCID does not have a dedicated repacking facility, and in most cases the supplier packaging will be placed directly on the lineside flow racks. It is very important for suppliers to utilize one of our standard LMI or MDI handheld box whenever possible. Bulk containers are not to be used for smaller parts, that can utilize our smaller handheld cartons.

## Bulk Containers/Pallet Boxes

- Bulk containers should not be used for smaller parts that can utilize our smaller handheld cartons.
- Bulk containers can be used for LMD and LMI, in a 2-, 3-, or 4- stack configuration
- Utilize L-shaped or U-shaped dividers to create sections within empty pallet boxes to increase rigidity along long walls with no support

## Special Packs

Certain components will require unique or non-standard packaging designs that fall into the "Special Packs" classification. If a SUPPLIER'S component(s) need non-standard consideration, LUCID PACKAGING will work with the supplier to assist in developing a packaging solution that meets the requirements of both trading partners.

## Corrosion Resistance

SUPPLIERS are required to present packaging solutions that protect components that are susceptible to rust/oxidation/corrosion for a minimum of 150 days upon ownership transfer to LUCID. Desiccants and/or VCI films should be used when necessary. If assistance is needed in this area, please contact [Packaging@lucidmotors.com](mailto:Packaging@lucidmotors.com). Also refer to LUCID engineering spec LMS-F001 Surface Coating Requirements.

## Dunnage Design

- The preferred material for interior packaging is cardboard for recycling and cost reasons. However, alternative materials are acceptable providing they can be recycled. Contact LUCID PACKAGING for acceptable alternatives
- Plastic bags are to be used sparingly but will be necessary on some parts to prevent packaging contamination, and to meet cleanliness requirements.

## Wooden Crates

- The preferred crate styles are wood cleated panelboard boxes (ASTM 6251) and (ASTM 6256). If another style is suggested, please contact LUCID PACKAGING for confirmation.
- Refer to the Uniform standard for Wooden Containers for design best practices.
- All wood boxes, wood skids, wood filler assemblies, wood dunnage assemblies, and wood pallets must be ISPM-15 compliant with IPPC heat treatment stamp located on at minimum, two sides. Lucid motors reserve the right to issue a SCAR if crates are found to be not stamped or non-treated wood material has been used.
- Crates should be assembled with screws, klimps, twist-locks, or helically/annularly threaded nails. For easy removal crate lids should be secured with screws. Please contact LUCID PACKAGING if other methods are suggested for confirmation.

Length of crate side	# Of fasteners
16" and under	2
16"-24"	3
24"-36"	4
36" +	Add 1 every 12"

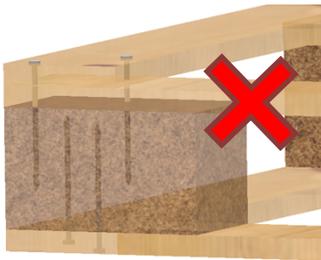
- If shipment is intended for overseas, Lucid Motors may request crate quotes for stainless steel hardware throughout.
- The shipping container shall be capable of multiple handling and storage periods

## Pallet Construction Requirements

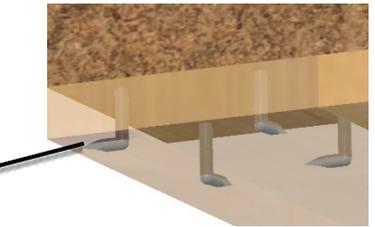
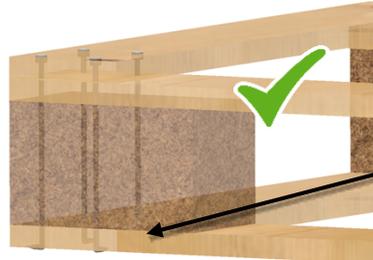
- All wood pallets shall conform to the National Wood Pallet Container Association Voluntary Standard for Wood pallets (NWPCA) ([Download Link](#)).
- Pallet Grade: New, Grade A or Grade 1. Grade A pallets haven't had and don't require any repairs



- Material: Solid Wood (Hardwood preferred).
- Pallet construction must adequately support double stacking with the heaviest load throughout transit to Lucid without cracking.
- No exposed nails or broken boards allowed.
- Pallets must be assembled with high quality helically threaded or annularly threaded nails.
- The fastener length shall be sufficient to provide a minimum penetration of 1-1/4 in. (32 mm) into the stringer or block for all deck board thicknesses.
- Block pallets must use solid wood or stacked plywood blocks. **Due to ongoing issues pressed wood/particle board is no longer acceptable. Exceptions may be given if the blocks are attached in a manner that does not rely on the pressed wood to provide any holding force for the nails.**

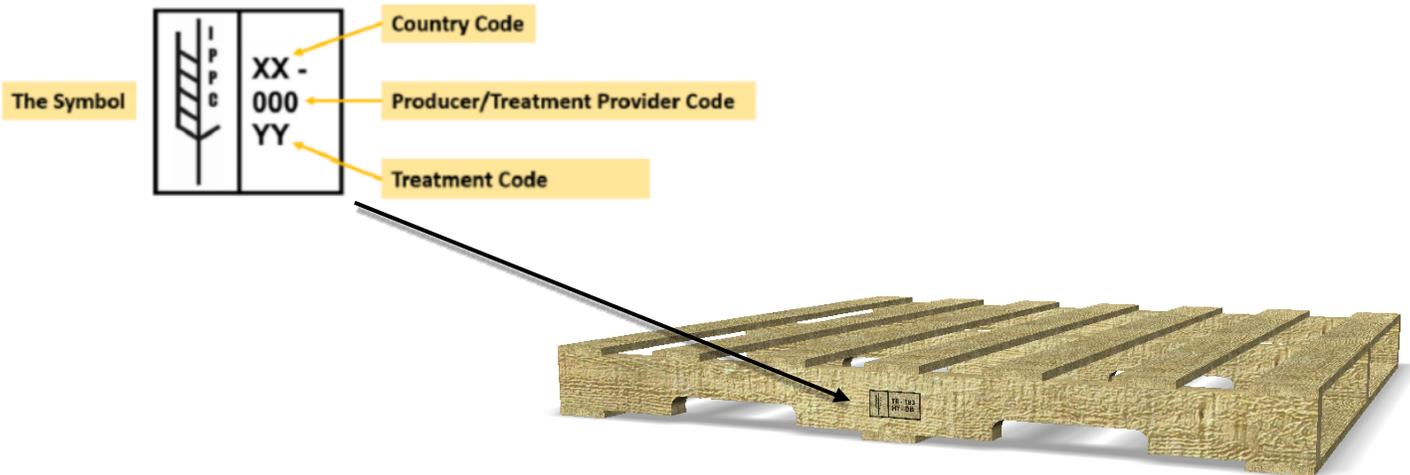


Pressed wood cannot hold nails in place well enough.



Clenched nails running completely through top and bottom deck boards

- All pallets going across international lines (including Mexico, Canada, all countries outside of U.S.) require pallets that are consistent with ISPM 15 wooden pallet regulations. The graphic below shows the stamp that should be visible on your pallet. You must have the Producer/Treatment Provide Code stamp clearly legible, or else it's liable to be held up in customs. SUPPLIER will be responsible for detention, repack, and other charges if treatment provider code is not legible.



## Pallet Deck Boards

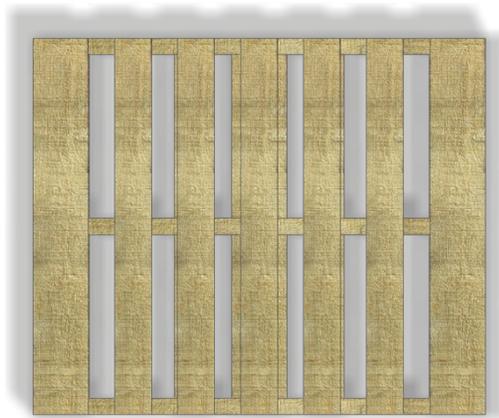
### Deck board Thickness (Top & Bottom)



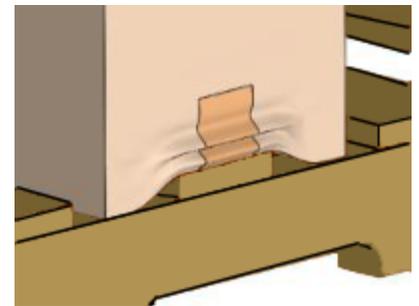
- Loads up to 150lbs (68Kg) → Board thickness: (0.50"/13mm)
- Loads from 151-1500lbs (68-680Kg) → Board thickness: (0.625" /16mm)
- Loads 1501-2500lbs (681-1134Kg) → Board thickness: (0.75" / 19mm)

### Top Deck boards

- Each pallet should have a minimum of 6 top boards.
- Deck boards are to be a minimum of 3.5" wide. The use of wider (5-6") for the first and last deck board is preferred for durability.



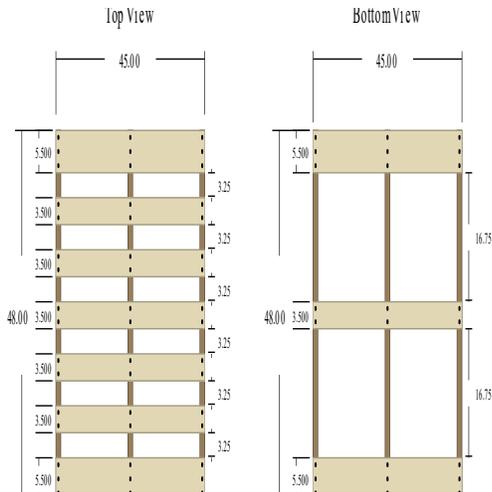
- Additional deck boards should be used if shipping smaller boxes that would otherwise fall into the gaps between boards.



Loss in strength = About 30%

## Bottom Deck boards

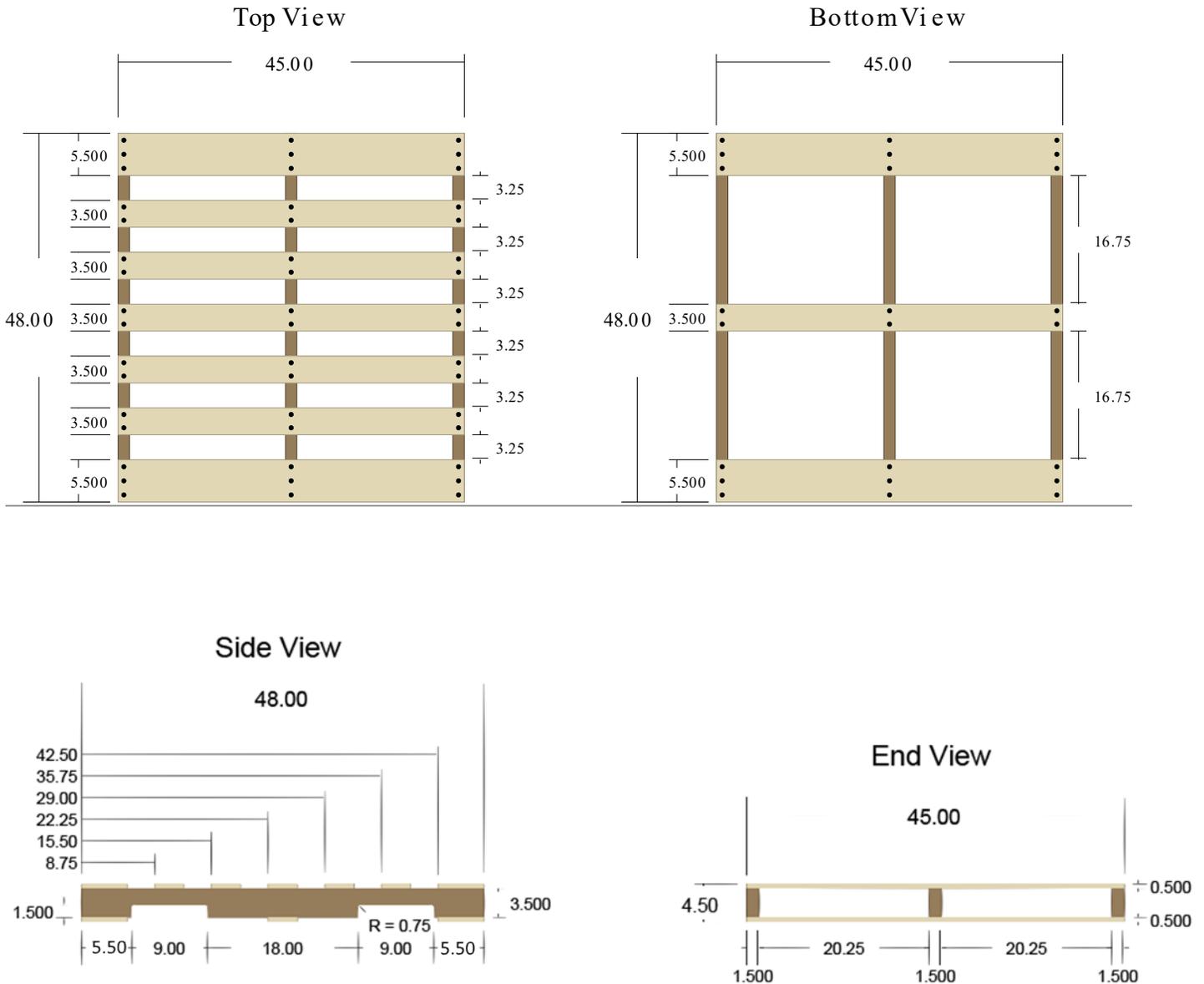
- Each pallet should have a minimum of 3 bottom boards (3.5" wide). The use of wider (5-6") for the first and last deck board is preferred for durability.
- Additional boards should be used if needed for stability when double stacking, especially if there is any underhang on the load.



## Drawing 2.5: Lucid Standard Domestic Pallet

This is the Lucid preferred pallet for domestic shipments.

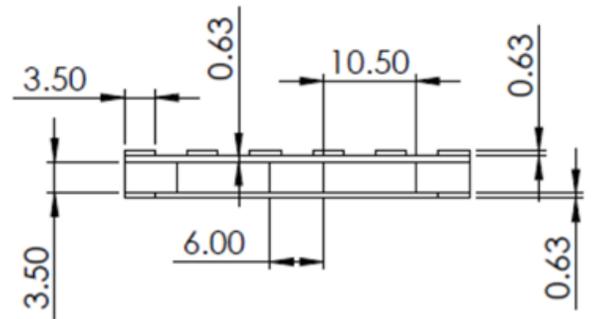
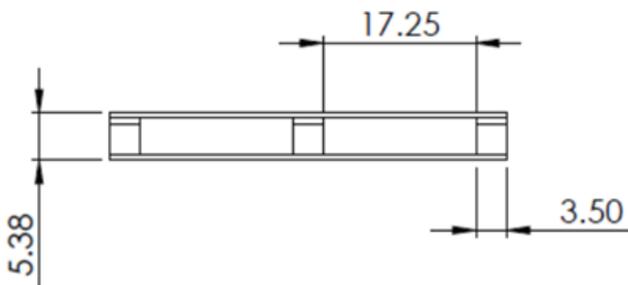
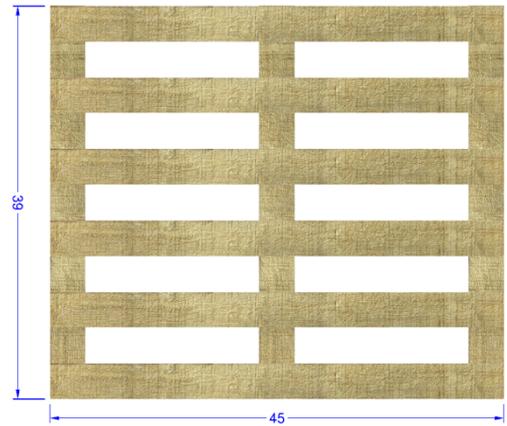
- Size: 48" x 45"
- Style: 4-Way Stringer
- Must adhere to our pallet construction requirements.
- The dimensions show may vary based product weight, reference the Pallet Deck Board section above.



## Drawing 2.6: Lucid Standard Import Pallet

This is the preferred pallet for import shipments

- Size: 45" x 39" (1140x980)
- Style: 4-Way Block Pallet
- Must adhere to our pallet construction requirements.
- The dimensions show may vary based product weight, reference the Pallet Deck Board section above.



**Table 2.1 LMD Series – All Sizes, Strengths**

Domestic cartons, for US/Mexico/Canada only. Outer Dimension Tolerance: + 0.00” / - 0.20”

**LMD Series- Modular Handheld Expendable Containers**

Carton Name	Exterior Dimensions (inches)			Cartons/Layer	Burst (psi) Tappi T-810	ECT (lbs f/in) Tappi T-811	Flute Size	Max Weight (lbs)	Box Type
	Length	Width	Height						
LMD011	15	12	7	12 Cartons/Layer	275	44	C	30	RSC /HSC
LMD012	15	12	9	12 Cartons/Layer	275	44	C	30	RSC /HSC
LMD021	24	15	7	6 Cartons/Layer	275	44	C	30	RSC /HSC
LMD022	24	15	9	6 Cartons/Layer	275	44	C	30	RSC /HSC
LMD023	24	15	11	6 Cartons/Layer	275	44	C	30	RSC /HSC
LMD024	24	15	14	6 Cartons/Layer	275	44	C	30	RSC /HSC
LMD025	24	22	7	4 Cartons/Layer	275	44	C	30	RSC /HSC
LMD026	24	22	9	4 Cartons/Layer	275	44	C	30	RSC /HSC
LMD027	24	22	11	4 Cartons/Layer	275	44	C	30	RSC /HSC
LMD028	24	22	14	4 Cartons/Layer	275	44	C	30	RSC /HSC
LMD031	48	15	7	3 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD032	48	15	9	3 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD033	48	15	11	3 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD034	48	15	14	3 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD035	48	15	24	3 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD041	48	24	7	2 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD042	48	24	9	2 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD043	48	24	11	2 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD044	48	24	14	2 Cartons/Layer	350	51	CB	30	RSC /HSC
LMD045	48	24	24	2 Cartons/Layer	350	51	CB	30	RSC /HSC

**Yellow** highlighted heights are preferred if part size allows for direct placement on material flow racks

## LMD Series- Bulk Unit Load Double (DW) and Triple Wall (TW) Expendable Containers w/ Lid

Carton Name	Exterior Dimensions (inches)			Carton/ Layer	Burst (psi) Tappi T-810 Double Wall	ETC (lbs f/in) Tappi T-811 Double Wall	Flute Size Double Wall	Burst (psi) Tappi T-810 Triple Wall	ETC (lbs f/in) Tappi T-811 Triple Wall	Flute Size Triple Wall	Box Type	HSC Lid Double Wall	Exterior Dimensions (inches)			Burst Strength/ ECT for DW	Flute Size
	Length	Width	Height										Length	Width	Height		
LMD051	47.25	32	15.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	48	32.75	5.25	350# or 51 ECT	CB
LMD052	47.25	32	21.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	48	32.75	5.25	350# or 51 ECT	CB
LMD053	47.25	32	29.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	48	32.75	5.25	350# or 51 ECT	CB
LMD061	47.25	44.25	15.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	48	45	5.25	350# or 51 ECT	CB
LMD062	47.25	44.25	21.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	48	45	5.25	350# or 51 ECT	CB
LMD063	47.25	44.25	29.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	48	45	5.25	350# or 51 ECT	CB
LMD071	51.25	47.25	15.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	52	45	5.25	350# or 51 ECT	CB
LMD072	51.25	47.25	21.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	52	48	5.25	350# or 51 ECT	CB
LMD073	51.25	47.25	29.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	52	48	5.25	350# or 51 ECT	CB
LMD081	62.25	47.25	15.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	63	48	5.25	350# or 51 ECT	CB
LMD082	62.25	47.25	21.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	63	48	5.25	350# or 51 ECT	CB
LMD083	62.25	47.25	29.25	1 Carton/ Layer	350	51	CB	900	80	CAA	HSC w/Lid	Lid	63	48	5.25	350# or 51 ECT	CB

**Table 2.2 LMI Series – All Sizes, Strengths**

**Required LMI Material Spec:**

Liners outside and inside – Kraft with minimum 80% virgin material

Mediums – Semi chemical with minimum 60% virgin material

Adhesive – Wet strength adhesives

Dimensional Tolerance of Outer Dimensions: + 0 mm / - 5 mm

**LMI Series- Handheld Expendable Containers**

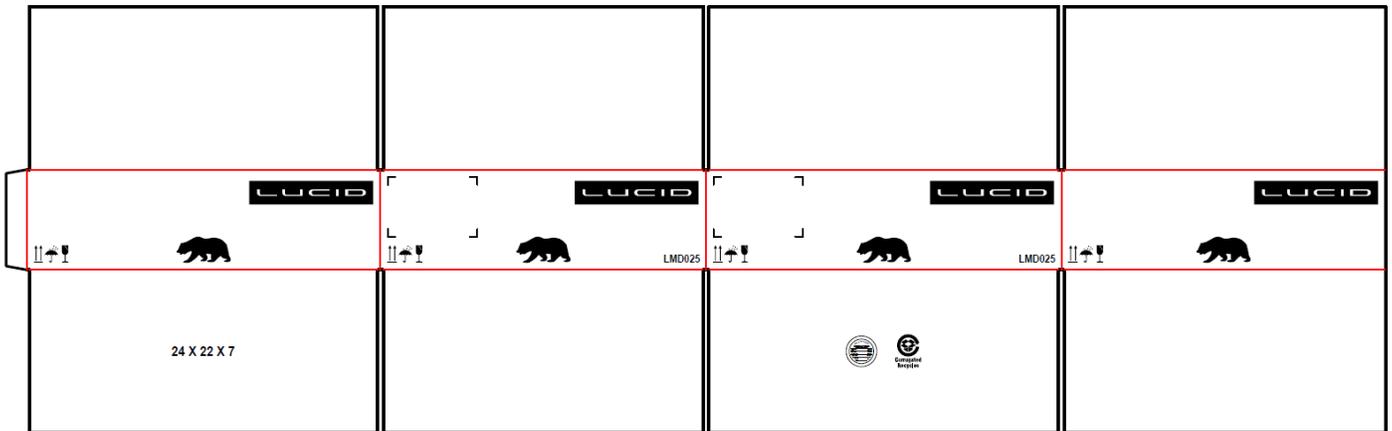
Carton Name	Exterior Dimensions						BTC (kg) Tappi T-804	BTC (lbs) Tappi T-804	ETC (lbs f/in) Tappi T- 811	ETC (kNm) ISO 3937: 2013	Burst (kPa) Tappi-T 810	Burst (psi) Tappi-T 810	Flute Size	Max Weight (kg)	Box Type
	Length		Width		Height										
LMI011	140 mm	5.5 in	240 mm	9.4 in	140 mm	5.5 in	195	411	32	6	1379	200	C	15	RSC/HSC
LMI012	140 mm	5.5 in	240 mm	9.4 in	280 mm	11 in	195	429	32	6	1379	200	C	15	RSC/HSC
LMI021	280 mm	11 in	240 mm	9.4 in	140 mm	5.5 in	323	711	51	10	1379	200	CB	15	RSC/HSC
LMI022	280 mm	11 in	240 mm	9.4 in	280 mm	11 in	325	711	51	10	1379	200	CB	15	RSC/HSC
LMI031	480 mm	18.9 in	280 mm	11 in	140 mm	5.5 in	715	1577	71	12	2413	350	CB	15	RSC/HSC
LMI032	480 mm	18.9 in	280 mm	11 in	280 mm	11 in	448	968	51	10	1379	200	CB	15	RSC/HSC
LMI033	480 mm	18.9 in	370 mm	14 in	140 mm	5.5 in	448	988	51	11	1379	200	CB	15	RSC/HSC
LMI034	480 mm	18.9 in	370 mm	14 in	280 mm	11 in	448	988	51	11	1379	200	CB	15	RSC
LMI041	560 mm	22 in	480 mm	18.9 in	140 mm	5.5 in	960	2116	71	12	2413	350	CB	15	RSC or FTD
LMI042	560 mm	22 in	480 mm	18.9 in	280 mm	11 in	456	1005	61	11	1896	275	CA, AB or CB	15	RSC
LMI042	560 mm	22 in	480 mm	18.9 in	560 mm	22 in	393	866	61	11	1896	275	CA, AB or CB	30	RSC
LMI042	560 mm	22 in	960 mm	37.8 in	280 mm	11 in	911	2009	71	12	2413	350	CA, AB or CB	15	RSC
LMI043	560 mm	22 in	960 mm	37.8 in	560 mm	22 in	786	1732	71	12	2413	350	CA, AB or CB	30	RSC
LMI051	1120 mm	44.1 in	480 mm	18.9 in	140 mm	5.5 in	947	2148	71	12	2413	350	CA, AB or CB	15	RSC
LMI052	1120 mm	44.1 in	480 mm	18.9 in	280 mm	11 in	911	2009	71	12	2413	350	CA, AB or CB	30	RSC
LMI053	1120 mm	44.1 in	480 mm	18.9 in	560 mm	22 in	786	1732	71	12	2413	350	CA, AB or CB	60	RSC

**LMI Series - Bulk Unit Load Double (DW) and Triple Wall (TW) Expendable Containers**

Carton Name	Exterior Dimensions						BTC (kg) Tappi T-804	BTC (lbs) Tappi T-804	ETC (lbs f/in) Tappi T- 811	ETC (kNm) ISO 3937: 2013	Burst (kPa) Tappi-T 810	Burst (psi) Tappi-T 810	Flute Size	Max Weight (kg)	Box Type
	Length		Width		Height										
LMI061	1120 mm	44.1 in	980 mm	37.8 in	280 mm	11 in	1395	3076	n/a	17	2758	400	CA, CB or AA	45	RSC
LMI062	1120 mm	44.1 in	980 mm	37.8 in	560 mm	22 in	1433	3160	n/a	17	2758	400	CA, CB or AA	109	RSC or HSC w/ Lid
LMI063	1120 mm	44.1 in	980 mm	37.8 in	720 mm	28.3 in	1454	3206	n/a	17	2758	400	CA, CB or AA	159	RSC or HSC w/ Lid
LMI064	1120 mm	44.1 in	980 mm	37.8 in	960 mm	37.8 in	1443	3181	n/a	17	2758	400	CA, CB or AA	329	RSC or HSC w/ Lid
LMI071	1300 mm	51.2 in	1120 mm	44.1 in	560 mm	22 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AA	250	HSC w/ Lid
LMI072	1300 mm	51.2 in	1120 mm	44.1 in	720 mm	28.3 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AA	250	HSC w/ Lid
LMI073	1300 mm	51.2 in	1120 mm	44.1 in	960 mm	37.8 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	294	HSC w/ Lid
LMI081	1450 mm	57.1 in	1120 mm	44.1 in	560 mm	22 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	250	HSC w/ Lid
LMI082	1450 mm	57.1 in	1120 mm	44.1 in	720 mm	28.3 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	294	HSC w/ Lid
LMI083	1450 mm	57.1 in	1120 mm	44.1 in	960 mm	37.8 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	476	HSC w/ Lid
LMI091	1680 mm	66.1 in	1120 mm	44.1 in	560 mm	22 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	250	HSC w/ Lid
LMI092	1680 mm	66.1 in	1120 mm	44.1 in	720 mm	28.3 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	294	HSC w/ Lid
LMI093	1680 mm	66.1 in	1120 mm	44.1 in	960 mm	37.8 in	n/a	n/a	n/a	n/a	n/a	n/a	CA, CBA or AAA	476	HSC w/ Lid

## Lucid Box Artwork

LUCID will begin rolling out box print requirements for expendable packaging over the next several months. Please reach out to your assigned LUCID packaging engineer for additional details.



### 3. Package Performance Testing

Packaging performance testing is the most effective means of ensuring the integrity of the packaging system, i.e. delivery of quality parts and shipping unit load structural performance.

For supplier-led packaging designs, it is the responsibility of the SUPPLIER to confirm and maintain that the packaging system design will be capable of protecting part quality, while also maintaining structural and dimensional characteristics of the packaging components. LUCID encourages SUPPLIERS to perform package design testing for all components.

Dependent upon the characteristics of the supplied component(s), LUCID may require testing within simulated laboratory environments and/or in “real-life” conditions (road test, field test). SUPPLIERS of components with required testing will be contacted by LUCID with further information on expectations.

Regardless of LUCID PACKAGING’S approval status for a particular component, the SUPPLIER will maintain responsibility for packaging performance and part integrity (applies to all supplier-led packaging designs). In the event of a packaging performance failure, LUCID reserves the right to request documentation indicating testing activities and results.

#### Recommended Testing Procedures:

**ISTA: International Safe Transit Association & ASTM: American Society for Testing and Materials**

#### **ISTA 1A, ISTA 2A, ISTA 3A (Single carton Testing)**

- These are three common procedures for testing single cartons up to 150lb (68kg).
- We recommend testing with one of these methods if the product will ever ship without a pallet.

#### **ISTA 1E, ISTA 3E (Unitized Load Testing)**

- These are two common procedures for testing a unitized pallet load (Full pallet).
- We recommend testing with one of these methods for parts that will always ship on a pallet.
- ISTA 3E is the preferred test for international shipments.

#### **ASTM D4169 (American Society for Testing Materials)**

- Single carton test comparable to ISTA 3A



## Testing Pass/Fail Criteria Overview

When testing a packaging system you must define the pass/fail criteria before testing. This should apply for both the packaging material and the product itself. This can vary from product to product, be sure to review this with your Lucid packaging contact.

### **Product (Pass/Fail Criteria)**

This is based on the incoming quality requirements for the part, provided by the Lucid quality department. If any of the parts fail a quality inspection due to package testing, then it should be considered a failure. Typical failure modes include bending, denting, scratching, contamination (from packaging). Functional verification maybe required to be performed before and after testing for critical parts. Especially those that contain sensitive electronics which can be damaged due to electrostatic discharge.

### **Packaging (Pass/Fail Criteria)**

As a result of package testing, if the packaging material exhibits any of the following defects it should be considered a failure. This list is not all inclusive, the results of the packaging testing should be review with your Lucid packaging contact if there are any questions/concerns with the test results.

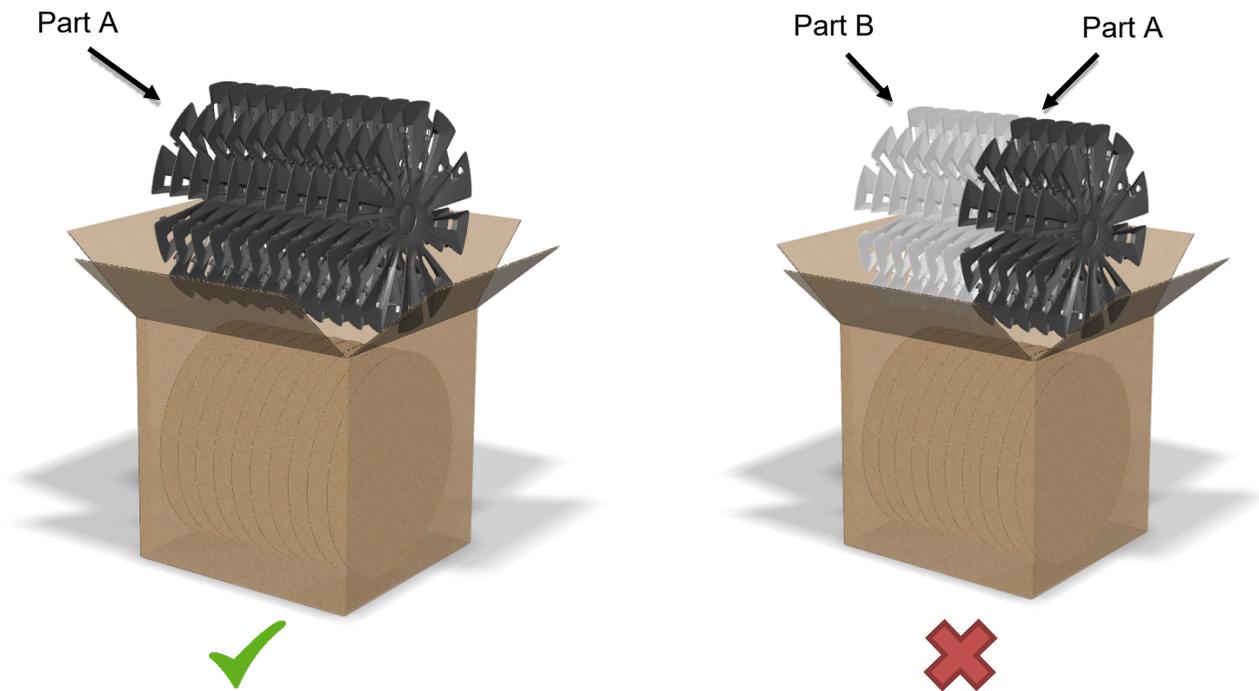
- The product punctures through the exterior box.
- The box becomes detached from the pallet or is no longer tightly secured.
- Significant cracking of the pallet that would lead to any of the following (exposed nails, instability of the load, restricts access to a forklift or pallet jack)
- The box is significantly crushed or torn.
- The dunnage is no longer securing or supporting the product inside the box.



## 4. SHIPPING & LOAD PREPARATION

### Mixed Carton shipments

- For inventory reasons **we do not allow mixed carton shipments**. Each carton must only contain one unique part number, no exceptions even if the parts are physically the same just different colors.
- If Lucid requests multiple related parts to be packed together as a “Kit” for manufacturing reasons, then a unique part number would need to be created for the entire group of parts.



## Building Pallet Unit Loads

- Pallets should ship with level layer quantities (full layers). If the Lucid orders do not allow for this see section on shipping orders less than MOQ.
- Do not ship pyramid loads. Freight carriers often attempt to double stack these resulting in instability and product damage.



Pyramid Stack



Level Layers

## Mixed Pallet Loads

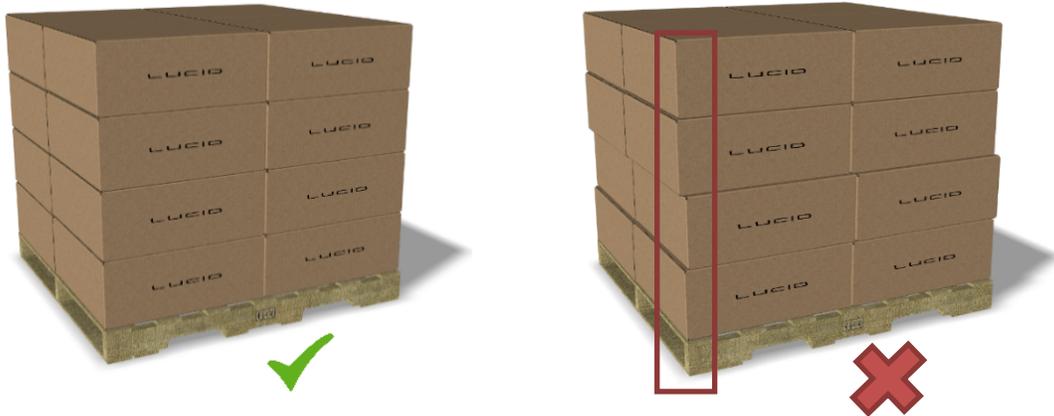
- Mixed loads are permitted if you have level layers.
- Cartons must be uniform in size to maintain load stability.
- Pallets must have material / product for only **one** LUCID facility.
- Mixed loads require the “MIXED LOAD” shipping label (see labeling Section).



## Carton Alignment on Pallet

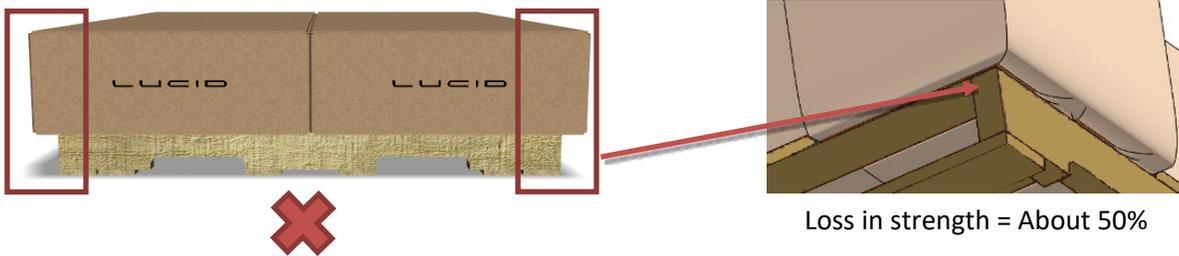
### Carton Stacking

When stacking cartons on a pallet care must be taken to align the corners. Misaligned cartons can reduce the compression strength by up to 30%.



### Carton Overhang on Pallet

Carton overhang on the pallet is not permitted for any final packaging design. Only in situations where the overhang has been discussed specifically and approved by Lucid will it be permitted.

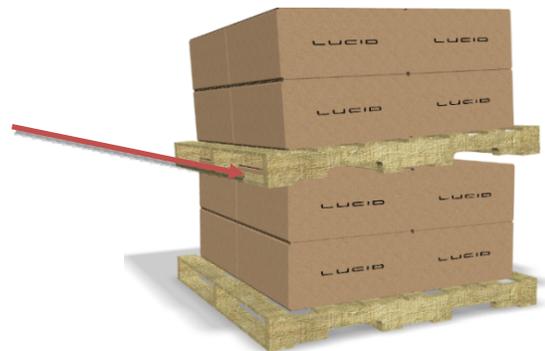


### Carton Underhang on Pallet

Carton underhang on the pallet is discouraged but acceptable if it meets the following criteria.

- The total underhang is less than 2" across the length or width of the pallet.
- The underhang does not cause stability issues when double stacking.
- If you are shipping a partial pallet of boxes that will not be stacked. Do not double stack cones should be added in this case.

Underhang can cause stability issues when double stacking



## Stretch Wrap Requirements

LUCID recommends the use of stretch wrap for safe and secure loads. The stretch wrap should be applied to provide sufficient strength to the pack. It should be capable of retaining the cartons in correct alignment with the pallet base.

### Application Procedure

The use of an automatic or semi-automatic stretch wrapping machine is the best way to apply stretch film. The stretch machine manufacture and film supplier should be consulted for programming the wrapping procedure and setting the pre-stretch tension. Some products may require additional film application for proper load stabilization.

Attach the stretch film to the pallet.



Wrap the film around the base of the pallet three or more times. ~2" (50mm) of film should extend down on to the pallet.



Move upward overlapping the previous layer by 40-60%.



Wrap film around the top three or more times. 2-6" (50-150mm) of film should go over the top of the load.



- Spiral back down overlapping the previous layer by 40-60%.
- At the bottom wrap around the pallet two times.
- 2" (50mm) of film should cover the pallet.
- Cut and secure the tail end of the film.



## Pallet Banding

Pallet bands should be used to secure heavy loads that cannot be secured by stretch wrap alone. Banding must be applied tight enough to secure the load throughout transit. It is recommended that edge protectors be used to avoid deformation of the top cartons from the bands.

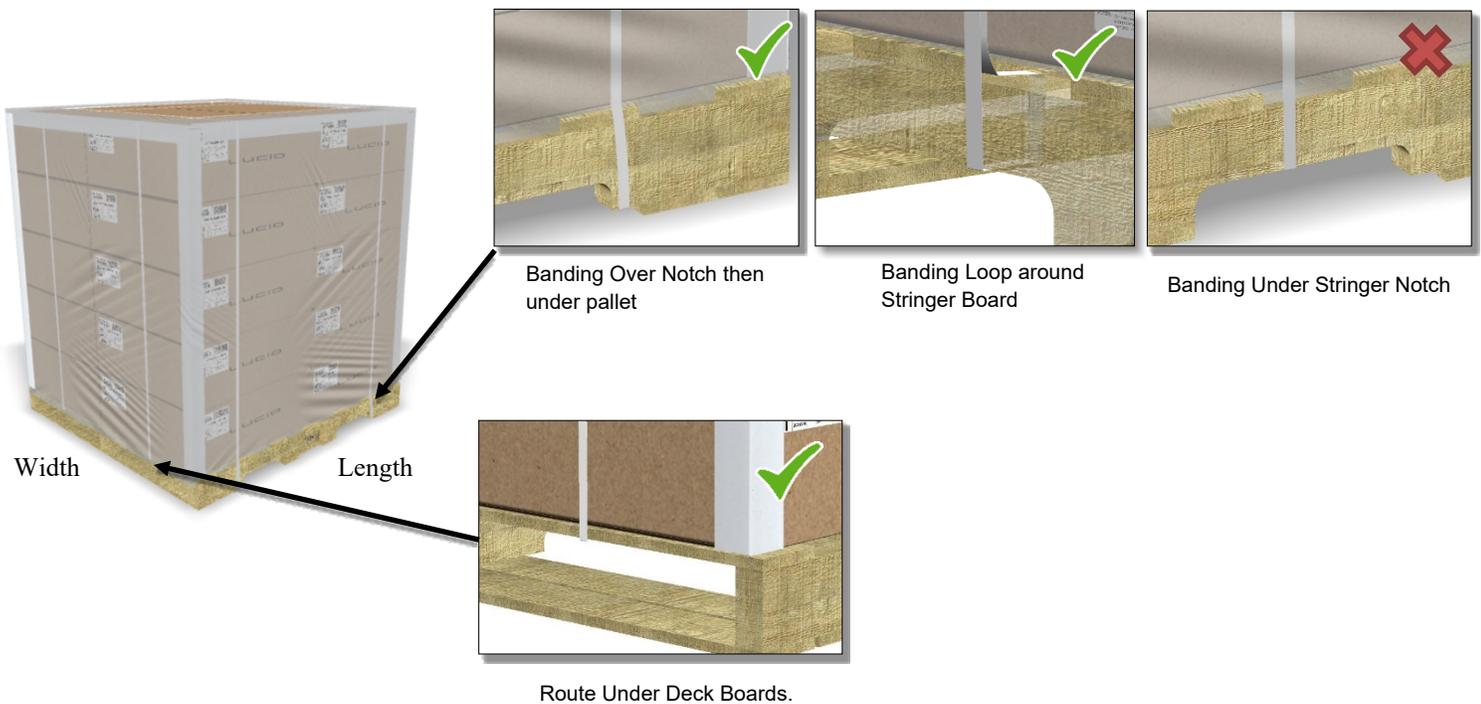
### Acceptable banding materials

Material	Recommended	Acceptable	Not Acceptable
Polypropylene		X	
Polyester	X		
Metal			X

- Polyester strapping-** This is the strongest plastic strapping material of the two (polyester vs. polypropylene). Higher initial tension can be applied and retained over a longer period in comparison to other plastic strapping materials. Due to these qualities, polyester works well on heavy, shrinking and/or settling loads.
- Polypropylene Strapping-** This material is acceptable for light duty applications as it's known for low break strengths, high elongation and low recovery. Polypropylene either stretches out easily and does not recover, or simply breaks.

### Banding Application

The banding must be applied so it will not interfere with the forklift or pallet jack. The examples below shown with a check mark are acceptable application methods for Stringer pallets. Block pallets do not have the same complications and the straps can usually just run under the deck boards on both the length and width.



## Pallet Stacking Requirements

- LUCID expects all pallet loads are designed to optimize transportation space, with the ability to double or triple stack. (Exceptions are made on a case-by-case basis for very heavy, tall, or unstable loads).
- LUCID may require special stacking requirements on some parts to maximize storage and transportation space.
- Any deviations to these requirements need to be approved by the LUCID Packaging group.



## **Pallet Load Reinforcement**

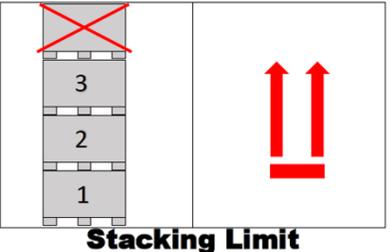
Increase your stacking strength by incorporating one of the following corner reinforcement techniques.

- Increase board strength (ECT) or move up to triple wall. Suppliers with repeated issues will be asked to move to triple wall
- Add fiber corner boards
- Add wood corner supports



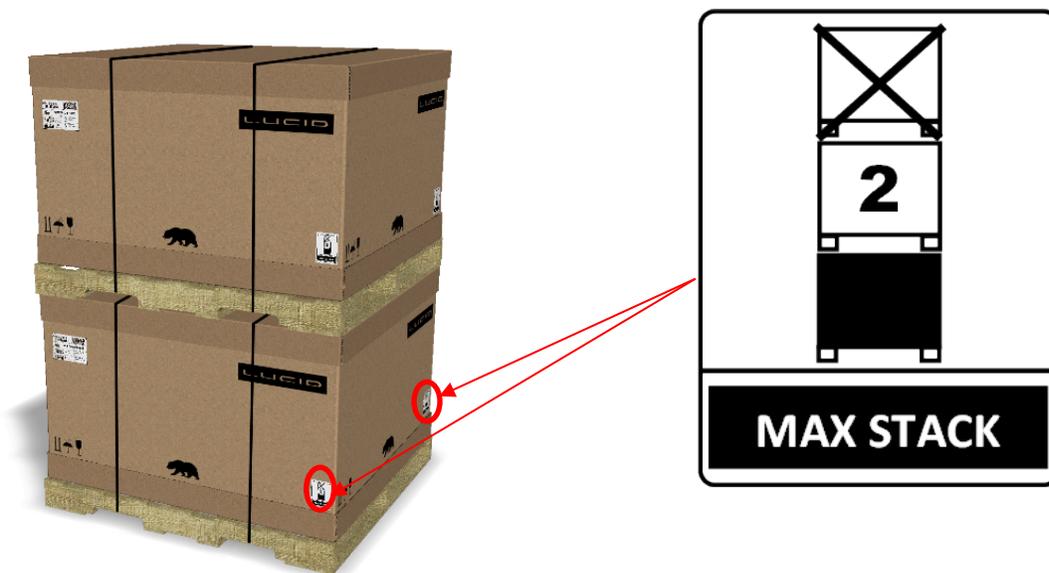
## Pallet Stacking Requirements- Max Stack Height Labeling

- All pallet loads must be marked to indicate the max stacking height for transit.
- The marking can be accomplished using any of the following methods shown below.

Boxes pre-printed with Max stack Height	Lucid provided label template	Other commercially available label
		

## Max Stack Label Requirements

- **Dimensions:** The label should be at least 3"x4" in size. The label can also be printed on the standard 4"x6" product label stock which might be the easiest option for most suppliers. If needed contact the Lucid packaging group for a label template that can be used to print labels on 8.5" x 11" paper.
- **Quantity Required:** A **minimum of two labels** applied to the bottom right box of two adjacent sides. The labels can also be printed on paper and taped onto the box.
  - **The # on the label is the total pallet loads in the stack. Ex. Double stack = 2, Triple stack=3**
  - All labels must be applied under the stretch wrap!
  - Deviations to the application location should be approved by your Lucid Packaging contact.



- If your unit load cannot be stacked at all, you must add a commercially available do not stack cone to the top of the load instead of the max stack label.
- Any deviations to these requirements must be approved by the LUCID Packaging group.



## Preparing Partial shipments (Orders less an MOQ)

### Supplier steps to take If orders received do not meet MOQ

- 1.) Confirm the Lucid material planner has accurate information for your current master box and pallet quantities. If changes to the packaging were made recently the information they have could be outdated.
- 2.) Ask the Lucid material planner if the order quantity can be rounded up to the closest box quantity, pallet layer, or full pallet load.

### Shipping Partial Pallet Loads

- Partial pallets should ship with level layer quantities (full layers) whenever possible.
- If level layers are not possible due MOQ alignment, choose one of the two options

**Option 1:** Pyramid arrangement + the addition of “no stack” cone taped or strapped to the top.

**Option 2:** Use empty boxes to complete the layer. The boxes must be labeled “Empty”. Empty boxes should be used sparingly and not compromise the stability of the load if double stacked.



### Shipping Partial Cartons

- When shipping partial cartons its best to maintain the use of approved packaging. Additional filler/dunnage should be added to limit product movement and to keep empty inserts from collapsing. If the product cannot safely be shipped in the approved carton or the carton is not available a smaller carton should be used.
- If you choose to ship with a smaller carton, you must first submit a Packaging Deviation Request ([See Section 5](#)).

## Guidelines for Airfreight Shipments

- Airfreight shipments may be necessary to meet production timelines. In these circumstances Lucid requires that each supplier use packaging that can meet the demands of the airfreight distribution environment. In some cases, this could mean a completely different packaging solution. Most commonly reinforcement of the current packaging can be sufficient. Lucid recommends at a minimum some addition reinforcement such as an addition corrugate overpack, hard fiber or wood edge protectors, or even a full wood frame (See page 28 “Pallet Load Reinforcement”).
- Documentation of the airfreight packaging will depend on how different it is from the approved PDS. If the packaging is the same but includes additional corner supports, banding or stretch film this can be listed in the notes section of the main PDS.
- If the airfreight packaging will vary in pack quantity, or the overall size from the approved PDS you will either need to submit a deviation or a separate PDS for airfreight. Discuss these requirements on a case-by-case basis with your LUCID Packaging contact.



## Guidelines for Hand Carry Shipments

For delivery of urgent and high-value parts sometimes hand carry shipments are the only option. The process can vary greatly depending on the airline used, Country of boarding/ Destination on International shipments as well as customs restrictions.

Generally, there are two types of hand carry options depending on the size of the product as detailed below.

### **Option 1:** Hand Carry the material in the Main passenger cabin (preferred)

- 1.) Combined length + width + height of baggage must not exceed 45 linear inches (114 cm), Individual length, width and height measurements may not exceed 22" x 14" x 9" (56 cm x 35 cm x 23 cm) respectively
- 2.) No maximum weight applies to carry-on baggage, except in the following locations.
  - Singapore, Singapore – Changi International Airport (SIN) carry-on should not exceed 15 lbs. (7 kg)
  - Beijing, China – Beijing Capital International Airport (PEK) Civil Aviation Administration of China (CAAC) requires that domestic hand carry bags should not exceed 10 kg. Individual carrier rules apply for international flights.
  - Shanghai, China – Pudong International Airport (PVG) carry-on should not exceed 22lbs. (10 kg)

### **Option 2:** Hand Carry the material as checked luggage/Cargo

- 1.) Measures up to: 62in / 158cm Linear (length + width + height; example: if 10l + 10w + 12h = 32 linear inches)
- 2.) Weight up to: 50lbs / 23kgs

## Packaging Requirements

Hand Carry shipping can subject the products to additional shock/vibration, and orientations they might see in a typical shipping environment. To ensure the products will not become damaged during this process, the supplier is responsible for reinforcing the existing packaging structure in addition to adding extra dunnage inside the packaging as necessary.

- **Tape/Stretch wrap:** All packaging should be securely taped closed. Unit loads should be and stretch wrapped and strapped to the pallet.



- **Reinforcement:** We recommend all boxes and unit loads use some additional structural reinforcement. Some common examples are the addition of wood or fiberboard corners supports.
- **Dunnage:** If necessary, cartons and small boxes should be overpacked in larger boxes with additional dunnage. Additional dunnage can also be placed around the parts as well to further limit movement and protect the parts inside.



**Example: Small Box Shipment**



**Example: Unit/load Shipment**

## Labeling Requirements

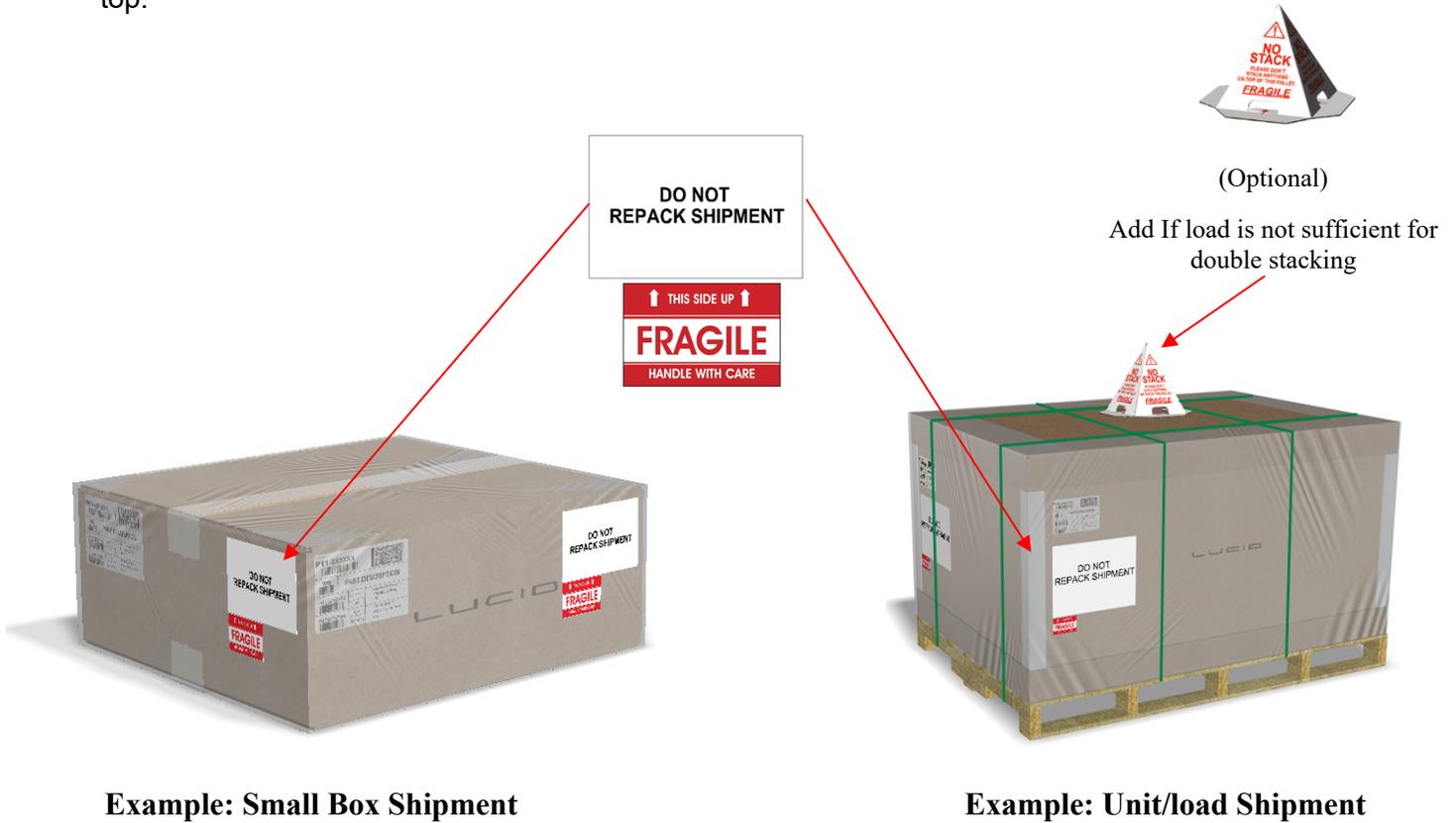
In addition to normal shipping labeling requirements, all Hand Carry shipments must include the following labels.

### “DO NOT REPACK SHIPMENT” labels.

All packages should be clearly labeled with “DO NOT REPACK SHIPMENT” labels. This can be printed on a sheet of paper and taped to the top of the box or printed on a label. Text should be easily readable, size according to your package dimensions. Larger boxes and pallet shipments should have at least two on different side of the box.

### FRAGILE Labels

- All packages should have a “FRAGILE this side up label” like the example shown below. Place two or more on different sides of the box.
- Add “NO STACK” Cones to unit loads if there is any risk of crushing if other products are stacked on top.



**Example: Small Box Shipment**

**Example: Unit/load Shipment**

## 5. PACKAGING COMPLIANCE

### Supplier Corrective Action Request (SCAR) Policy

For definitive SCAR process, please refer to Supplier Quality Manual.

Failure to meet the requirements contained in this document will result in the issuance of a SCAR. Upon issuance of a SCAR, there will be a stated reason for noncompliance. In accordance with SCAR, suppliers are expected to correct the noncompliance and settle potential penalties. Penalties will be assessed as follows:

- Noncompliant boxes, crates, racks, etc. – Up to \$500.00 per event
- Noncompliant label – Up to \$500.00 per event
- Recurring broken pallets – Up to \$500.00 per event

**LUCID MOTORS reserves the right to determine the failure mode and subject to a \$500 penalty**

### Packaging Deviation Process

- Once Lucid has approved the suppliers submitted PDS it is critical that suppliers ship in the approved packaging. Most of the inbound packaging is used directly on the flow racks, unapproved changes to the box size or pack density will disrupt material flow and inventory processes.
- If you absolutely cannot ship in the approved packaging, a temporary packaging deviation form must be submitted and approved prior to the shipment.
- Package deviations cannot be used long term and should only apply to 1 or 2 upcoming shipments.
- Deviated packaging should be smaller dimensionally so it can still fit in allotted space on the manufacturing line.

Acceptable use of the Package Deviation Form.

- If shipping non-production samples for engineering
- If approved packaging is unavailable due to material shortage
- If order quantity is so low that the approved packaging cannot be used

Exceptions that do not require a Deviation form.

- If the order quantity does not meet the SPQ of the approved box. The shipment does not require a deviation IF you are still using the approved packaging box/size.

## Example: Lucid Motors Packaging Deviation Request Form

For a copy of this form see link in section 7 or contact [Packaging@lucidmotors.com](mailto:Packaging@lucidmotors.com)

### Lucid Motors Packaging Deviation Request Form



Supplier Name:  SOP PKG Implementation Date:

Submission Date:

Deviation applies to parts shipping for  Beta  RC  SOP  Other \_\_\_\_\_

**Describe what caused the request to Deviate**

Part #	Description	Ship Qty	First Ship Date	Last Ship Date	Notes

**Describe the packaging deviation**

*Picture of Single Box*



*Picture of full Unit Load*



Primary PKG Dimensions:    (Lx W x H) (In)

Unitload PKG Dimensions:

Weight:  (lbs.)

Weight:

**Lucid Comments**

Lucid Packaging Name: _____	Date: _____	Signature: _____
Supplier Packaging Name: _____	Date: _____	Signature: _____
Supplier Manager Name: _____	Date: _____	Signature: _____

According to the Logistics and Packaging Guidelines, delivering quality parts to Lucid continues to be Supplier responsibility. Building unit loads and implementing material handling operations in accordance with the guidelines continues to be Supplier responsibility. By signing this I acknowledge this disclosure. ■

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## 6. LABELING

### Shipping Labels

Adherence to shipping label requirement is mandatory and will be continuously monitored. Noncompliance to these instructions will be brought to your attention through the issuance of a SCAR by the receiving facility. Suppliers are responsible for correct labeling of all hazmat materials in accordance with state and local laws.

### General Shipping Label Material Specifications

**Label Size:** 4.0 inches (102mm) high by 6.0 inches (152mm) wide. A6 stock is also acceptable, with formatting that meets required font size.

**Label Stock Material:** Print media shall be of proper carbon content to insure passing ANSI X3.182 Bar Code Print Quality guidelines.

### Shipping Label Content

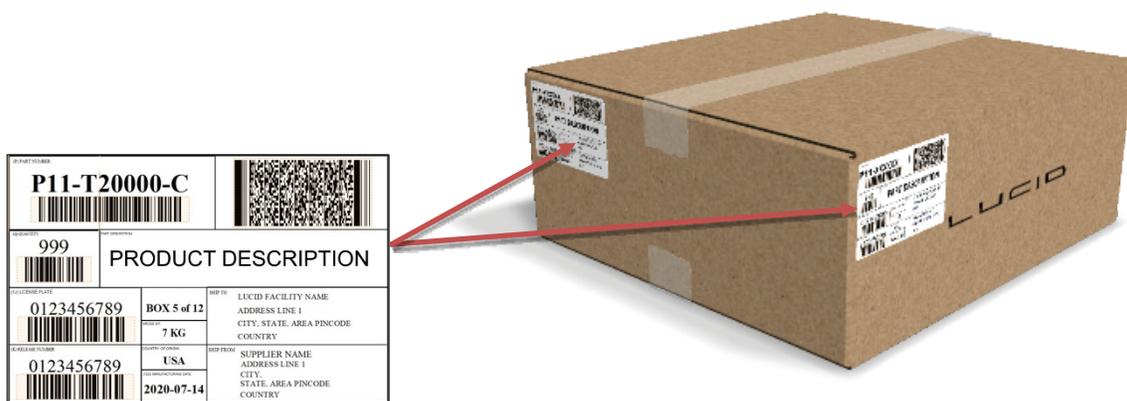
Details on the label formatting, required fields, barcode content, and EDI have now been separated from the packaging guidelines into a standalone document managed by the labeling group. Please contact the labeling group for a copy of this document [ShippingLabels@lucidmotors.com](mailto:ShippingLabels@lucidmotors.com).

### Label Placement (Expendable Packaging)

Suppliers must ensure that all materials shipped to LUCID are correctly labeled and that the labels are properly attached.

### **Carton Labeling- Single Box**

Each carton requires two labels “Carton labels” placed in the upper left-hand corner as shown. Although not critical, place labels approximately 1/2” from the edge of the box.



**Carton Label**

## Pallet Labeling - Cartons on a Pallet

When shipping multiple cartons of the same part number placed on a single pallet, the “master label” is required. The master label should contain the words “Master Label” is to be placed in the middle of two adjacent sides outside of the stretch wrap.

The individual carton labels should be scanned to create the Master Label. The quantity on the master label should reflect the sum of the quantities of all the individual carton labels.

P11-T20000-C			
999	US02	<b>MASTER LABEL</b>	
0123456789	380 KG	SUB ASSY - PANEL FLOOR BENCH SEAT CUSHION BRACKET	
	USA	4709 S-HADCOMAR DR KENNER, LA 70082 USA	
0123456789	12	1502 GILBERT CT. ANN ARBOR, MI 48105 USA	
	2020-06-17		

**Master Label**



**EX. STD PALLET LOAD**

## Pallet Labeling – Pallet Box (1 Carton Unit Load)

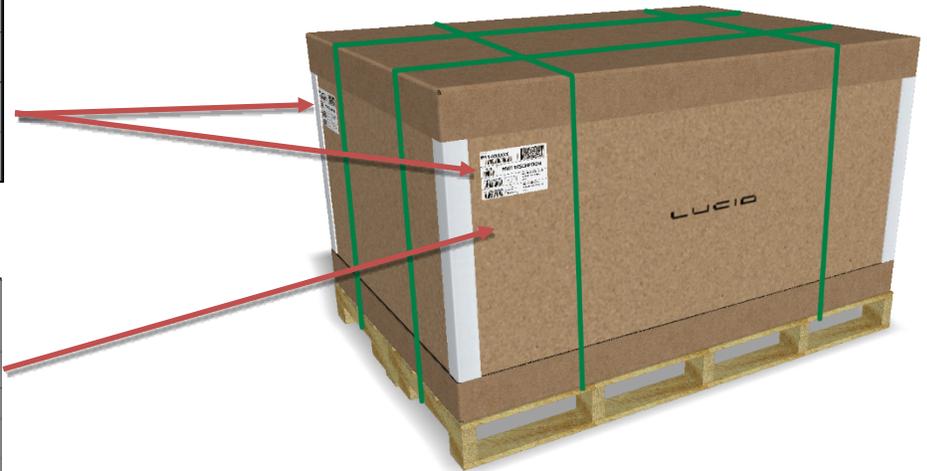
When shipping parts in a “Pallet Box” that occupies the entire pallet, only the “Carton Label” is required on the upper left of the two adjacent sides as shown below. If using an HSC box with a lid the label should be placed low enough, so it is not covered by the lid. The “Mater Label” is not required for these shipments but can be added below the Carton label if the supplier prefers.

P11-T20000-C		[QR Code]	
999	PRODUCT DESCRIPTION		
0123456789	BOX 5 of 12	LUCID FACILITY NAME	
0123456789	7 KG	ADDRESS LINE 1	
		CITY, STATE, AREA PINCODE	
		COUNTRY	
	USA	SUPPLIER NAME	
	2020-07-14	ADDRESS LINE 1	
		CITY,	
		STATE, AREA PINCODE	
		COUNTRY	

**Carton Label**

P11-T20000-C		[QR Code]	
999	US02	MASTER LABEL	
0123456789	380 KG	SUB ASSEMBLY - PANEL FLOOR	
		BENCH SEAT CUSHION BRACKET	
	USA	4708 SHADOWNAR DR	
		KENNER, LA 70082	
		USA	
0123456789	12	1582 GILBERT CT.	
	2020-06-17	ANN ARBOR, MI 48106	
		USA	

**Master Label**



**EX. PALLET BOX**

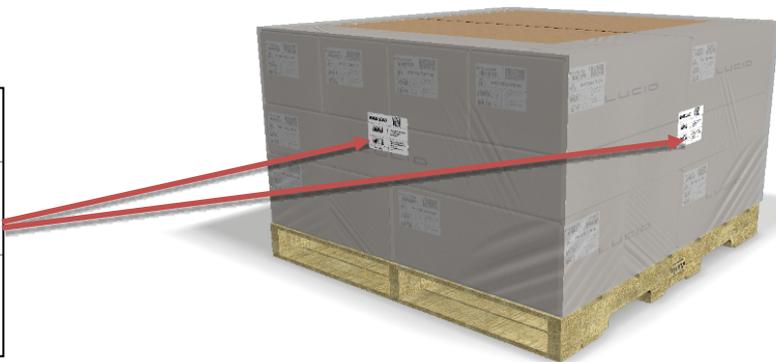
## Pallet Labeling - Mixed Load

When shipping parts in a mixed pallet load a special "Mixed Load" label is required and should be placed in the middle of two adjacent sides outside of the stretch wrap. In this scenario the “Master Label” is not to be used. Each individual carton must still be labeled normally per the Carton Label section.

**Reminder: A mixed load means (Box 1=Part A, Box 2=Part B). Individual boxes can never be mixed with more than one part #.**

MIXED LOAD		[QR Code]	
0123456789	Lucid Logistics Operation Center		
	1115 West Alameda Dr		
	Tempe AZ 85282		
0123456789	Hua Yishang Industrial Park,		
	No.4 Fenghuang Industrial Area,		
	Fuyang Town,		
	Bacuan District, Shenzhen,		
	CHINA		
2021-08-10			

**Mixed Load Label**



**EX. MIXED PALLET LOAD**

## Label Placement (Returnable Packaging)

Suppliers are responsible for removing labels on returnable containers & affixing new labels prior to shipment unless prior arrangements have been made with the LUCID receiving facility. This also includes tier 2 parts shipping to a tier 1 supplier, all tier 2-part labels must be removed prior to shipping finished goods to Lucid.

Labels should only be applied to label place cards. If labels place cards are missing, damaged, or not installed in the correct locations as shown in the following guidelines inform your Lucid Packaging Contact.

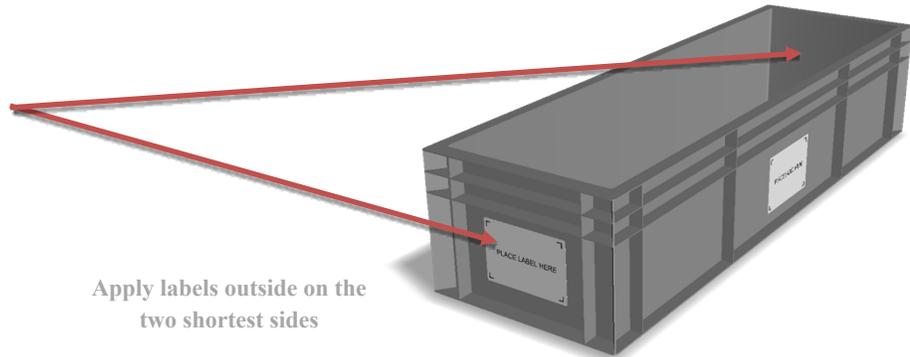
### Plastic Totes- Individual

Plastic totes are to be labeled with two Carton Labels affixed to the label place cards on two opposite sides of the container width (shortest two sides) as shown below.

**IMPORTANT:** Label place cards may be installed on three or more sides of the tote. Do not apply Carton Labels on all empty place cards.

P11-T20000-C			
999	PRODUCT DESCRIPTION		
0123456789	BOX 5 of 12	LUCID FACILITY NAME ADDRESS LINE 1 CITY, STATE, AREA PINCODE COUNTRY	
0123456789	7 KG	SUPPLIER NAME ADDRESS LINE 1 CITY, STATE, AREA PINCODE COUNTRY	
0123456789	USA	2020-07-14	

Carton Label



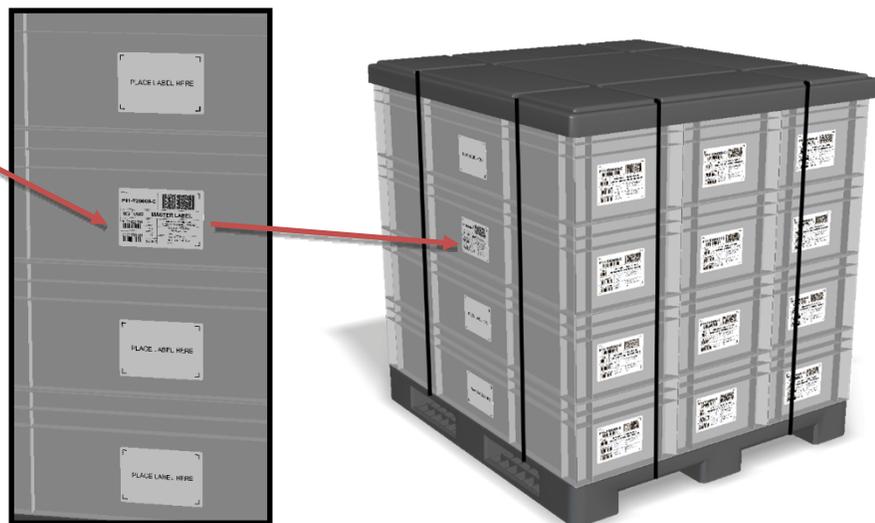
### Plastic Totes -Pallet Load

A unitized load of totes requires two Master Labels affixed on opposite sides of the load. The Master Labels must be applied to one of the empty label place cards toward the center of the load whenever possible. If using stretch wrap the master label can be applied to the outside of the stretch wrap.

**Mixed Load:** Follow the same procedure using the Mixed Load Label in place of the Master Label.

P11-T20000-C			
999	US02	<b>MASTER LABEL</b>	
0123456789	380 KG	SUB ASBY - PANEL FLOOR BENCH SEAT CUSHION BRACKET	
0123456789	12	4709 S-ADCOMAR DR KENNER 1 A 76080 USA	
0123456789	USA	1502 GILBERT CT. ANN ARBOR, MI 48105 USA	
0123456789	2020-06-17		

Master Label



## Plastic Bins/Bulk Containers

Plastic bins are to be labeled with two Carton Labels affixed to the label place cards on two adjacent sides of the container as shown below.

P11-T20000-C		[QR Code]	
999	PRODUCT DESCRIPTION		
0123456789	BOX 5 of 12	LUCID FACILITY NAME	
0123456789	7 KG	ADDRESS LINE 1	
		CITY, STATE, AREA PINCODE	
		COUNTRY	
0123456789	USA	SUPPLIER NAME	
	2020-07-14	ADDRESS LINE 1	
		CITY, STATE, AREA PINCODE	
		COUNTRY	

Carton Label

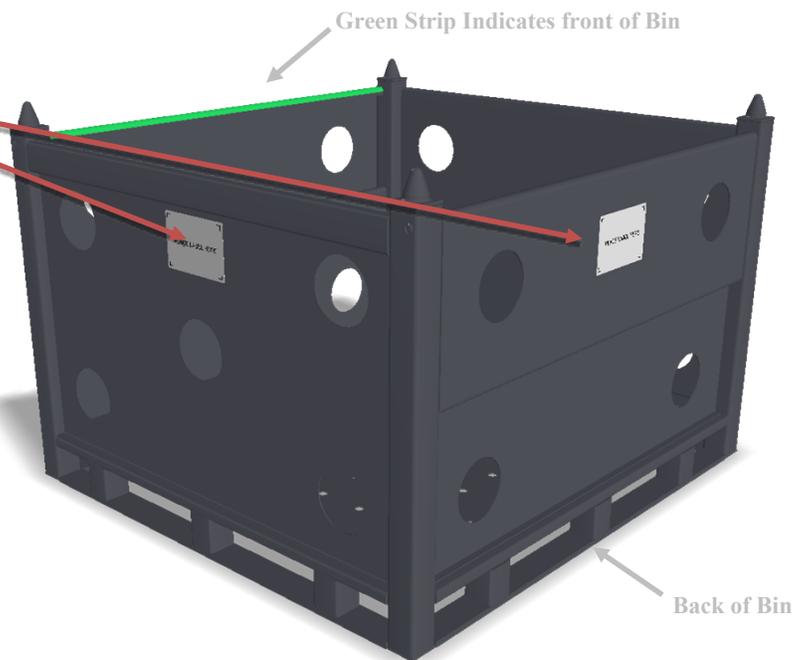


## Metal Bins

Metal bins are to be labeled with two Carton Labels affixed to the label place cards on the back side and left side (Left side when facing the back of the bin as shown below).

P11-T20000-C		[QR Code]	
999	PRODUCT DESCRIPTION		
0123456789	BOX 5 of 12	LUCID FACILITY NAME	
0123456789	7 KG	ADDRESS LINE 1	
		CITY, STATE, AREA PINCODE	
		COUNTRY	
0123456789	USA	SUPPLIER NAME	
	2020-07-14	ADDRESS LINE 1	
		CITY, STATE, AREA PINCODE	
		COUNTRY	

Carton Label



## Metal Racks

Metal racks are to be labeled with two carton labels affixed to the label place cards on the back side and left side (Left side when facing the back of the rack as shown below).

### IMPORTANT:

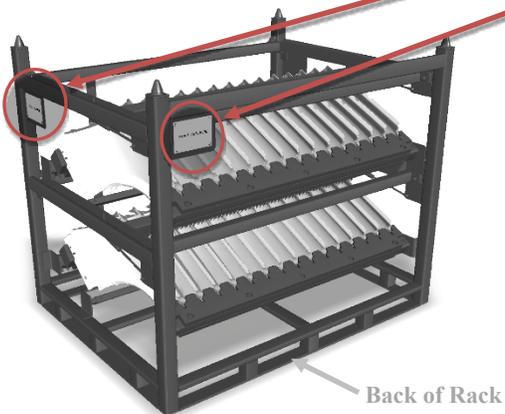
- Some racks may have extra label plates installed, do not place labels in all available locations.
- The location of the label plate on the back side of the racks could be on the upper left or right side, use whichever is available. For rack manufacturing example #1 is the preferred label plate installation location.

PART NUMBER <b>P11-T20000-C</b>		QR CODE	
QUANTITY 999	PRODUCT DESCRIPTION		
LICENSE PLATE 0123456789		BOX 5 of 12	SHIP TO LUCID FACILITY NAME ADDRESS LINE 1 CITY, STATE, AREA PINCODE COUNTRY
WEIGHT 7 KG		SHIP FROM SUPPLIER NAME ADDRESS LINE 1 CITY, STATE, AREA PINCODE COUNTRY	
BILL OF MATERIALS 0123456789		USA	2020-07-14

Carton Label

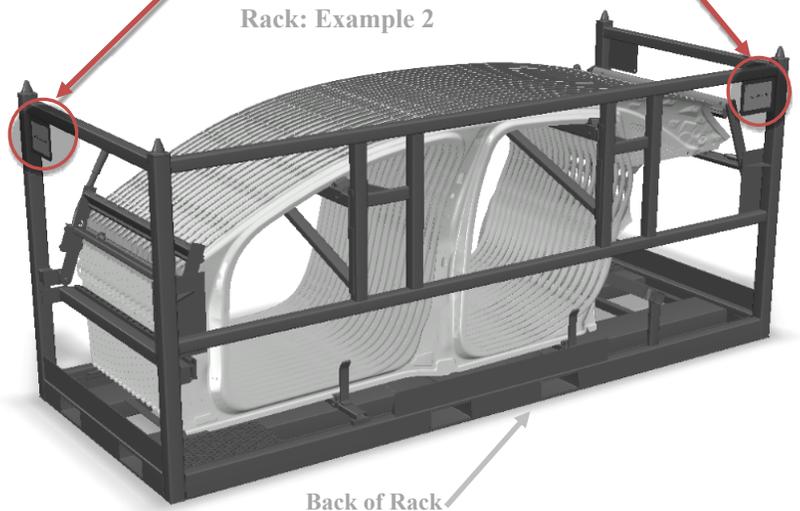


Rack: Example 1



Back of Rack

Rack: Example 2



Back of Rack

## 7. SUPPLIER LINKS & RESOURCES

LUCID Supplier Packaging Documents ShareFile -<https://lucidmotors.sharefile.com/i/icc89da82a474a558>

Di Central Documents- [Follow Link](#)

Uniform Standard for Wood Pallets-[Follow Link](#)

Uniform Standard for Wooden Containers- [Follow Link](#)

ISTA Testing Procedures- [https://ista.org/test\\_procedures.php](https://ista.org/test_procedures.php)

### Common Corrugate Box Styles

**Regular Slotted container (RSC):** Most common style with both top and bottom flaps



**Half Slotted Container (HSC):** Uses flaps on the bottom with a lid on the top



**Full Overlap Box (FOL):** Similar to RSC but the top and bottom flaps fully overlap



## 8. FINAL PACKAGING DESIGN & LABELING CHECKLIST

- Is a Lucid standard carton being used (LMD, LMI)?**  
*If not, see tables of containers [here](#) and select a standard carton.*
- Is the pack volume 90% full?**  
*If not, reassess container selection or contact LUCID PACKAGING for further guidance.*
- Is the pack within the 30 lbs (13.6 kg) weight restrictions (Handheld only)?**  
*If not, reduce size to meet ergonomic limits.*
- Is the load height within our the 52.5" (1333mm) max?**  
*If not, reduce size to meet our limits.*
- Is there only one part number per carton?**  
*If not, one part number can be shipped per carton, no exceptions.*
- Are all packaging materials capable of being recycled, or could they be environmentally harmful after disposal?**  
*If not, revisit material selection and structural design until this is achieved.*
- Has performance testing or engineering validation process been performed (both part quality and packaging integrity confirmed)?**  
*If not, determine risks associated with part rejection.*
- Is the packaging design approved (PDS)?**  
*If not, submit packaging proposal to [Packaging@lucidmotors.com](mailto:Packaging@lucidmotors.com).*
- Is the label proof approved? Are 2 labels being applied to each carton?**  
*If not, submit label proof to [ShippingLabels@lucidmotors.com](mailto:ShippingLabels@lucidmotors.com)*
- (Outside US Only) Does your pallet have an ISPM15 stamp?**  
*If not, verify your pallet has the appropriate ISPM15 stamp.*
- Have you defined a continuous improvement plan?**  
*As a supplier for LUCID, you are expected to always be looking ahead for cost improvement opportunities and efficiency gains.*

**Remember, suppliers are responsible for ensuring part quality.**

LUCID

