PACKING GUIDE

DHL eCommerce Solutions, Malaysia

Excellence. Simply. Delivered.

THE FOUR STEPS

Step 1 - Assess

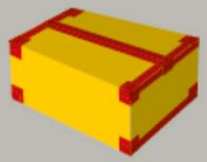
- Consider the weight & fragility of shipment contents
- Value of content being shipped
- Packing requirements prescribed by transportation regulations

Step 2 - Pack

- Use quality double wall boxes
- Ensure 6cm distance between shipment content and all walls of the box
- Fill all void space

Step 3 - Seal

- Use pressure sensitive tapes of at least 48mm width
- Adopt H-taping method to seal all edge and seams



Step 4 - Label

- Apply shipment label to the top surface of your package
- Clearly display shipment label on a single surface

ASSESSING REQUIREMENTS

CONSIDERATIONS THAT WILL HELP YOU DETERMINE YOUR PACKAGING REQUIREMENTS

Weight	■ Consider the strength and durability of the packaging box ■ An appropriate box should be able to securely hold the weight of the content being shipped
Size and Shape	■ Items should not touch the outer wall of the box ■ Odd-shaped or rounded packaging may need extra attention
Form of Contents	■ Special packaging materials and packing techniques are required for shipping liquids and powders
Value of Contents	■ Extra cushioning and protection may be required for high value goods
Fragility	■ Extra cushioning and protection are required for fragile items ■ Apply special handling label
Final Use	■ Does the box need to be retail ready? Do you want to avoid any markings on the box?
Regulations	■ Some regulated items may require specialist packaging

INFLUENCING FACTORS

Weight

Humidity

Cost

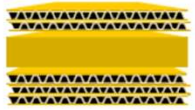
...
and more

PACKING MATERIALS

Parcel

Material

- Always use high quality corrugated cardboard boxes for parcels. For fragile or heavy items, double-wall or tri-wall constructions are recommended.
- Avoid reusing old boxes as they may have lost some of their rigidity.



Strength

- Look out for the manufacturer stamp which tells you information about the construction type and strength of a box. Ask your box supplier for more information as required.
- Refer to the box specifications below to select suitable packaging for the weight of your shipment.

Size

- Under-filled boxes may collapse and over-filled boxes may burst. Prevent this by choosing a box with the right size for the content being shipped.

Flyer Bag

Strength

- To avoid splits or tears, the tensile (stretch) and seam (seal glue) strength of the flyer bag should meet the recommended standards outlined below.
- DHL Flyer Bags have a minimum elongation (stretch) of 35cm prior to failure and can hold 30% more weight at the seam.

Box Specifications

Parcel Weight	Construction	Bursting Test (pounds-per-square-inch)	Edge Crush Test (pounds-per-square-inch)
Up to 5kg	Single Wall	155	34
5-10kg	Single Wall	160-200	34
10-15kg	Double Wall	250-300	55
15-20kg	Double Wall	250-300	55
20-25kg	Double Wall	250-300	55
25-30kg	Double Wall	350	55
>30kg	Specialist Packaging Method		

Flyer Bag Specifications

Document Weight	Construction	Seam Strength	Tensile Strength (pounds-per-square-inch)
Up to 4kg	Polythene (60µm)	4 kg	MD/TD 32.5Mpa & 400% elongation at break

Remarks:

- **Burst-Test** (aka Mullen Test) is the force of pounds per square inch required to rupture or burst the side of a corrugated box. The result indicates the box's ability to withstand external or internal forces, and how the box will contain its contents during rough handling.
- **Edge-Crush-Test** (ECT) measures the stacking strength of corrugated cardboard boxes or fiberboard. Determining a finished box's compression-strength is defined by the amount of force that is needed to crush the cardboard by standing it on its edge.
- **Seam Strength** refers to the load requires to break a seam.
- **Tensile Strength** is the maximum stress that a material can withstand while being stretched or pulled before failing or breaking.

INTERNAL PACKING MATERIALS

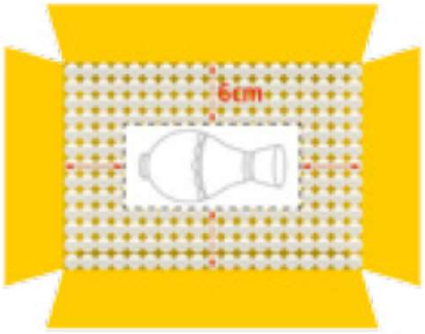
Type of Material	Packaging Function				
	Cushioning	Void Fill	Protection	Divider	Other Function
Bubble Wrap	✓	✓	✓		
Small Cell ¼ inch Suitable for lightweight items					Interleaving
Large Cell ½ inch Suitable for medium weight products					Blocking
Foam Wrap	✓	✓	✓		
Foam peanuts/pellets	✓	✓		✓	
Air Bags		✓			
Crumpled Paper		✓	✓		
Corrugated Inserts		✓	✓	✓	
Shredded Cardboard		✓	✓	✓	Shock absorption

- Bubble wrap, airbags, cardboard and foam peanuts/pellets are all commonly used as packaging material.
- All have different qualities and it is important to use them appropriately.
- This table will help you decide what material is suitable for your needs.
- Note that while bubble wrap offers some void fill properties, it is more effective to use more suitable materials when trying to fill larger spaces.

PACKING TECHNIQUES

Leave No Empty Space

- It is important to completely fill empty space within the box to avoid contents moving during transit which can cause damage to both contents and box.
- Place void filler on the base of the box then around the item you are shipping. Ensure there are no gaps or movement.
- When choosing void filling materials, always ensure that they would provide sufficient support for the weight of the shipment contents. Some materials may sink or deflate under the weight of the content which may eventually leave empty space inside the box.



6cm Distance

- Always place items being shipped in the center of the box with at least 6cm of separation from any external walls or corners.
- Take this into consideration when determining the size of box relative to the size of the contents.

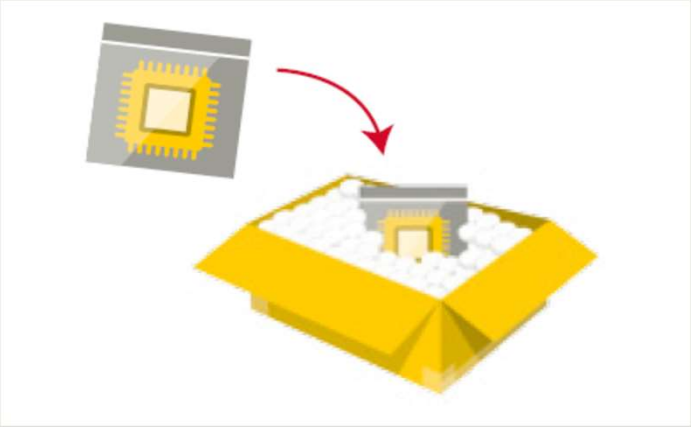
Wrap Items Individually and Use Dividers

- When shipping multiple items in a single package, always wrap each item individually and separate with corrugated inserts or other divider materials.
- Dividers are helpful to avoid damage caused by individual items making contact during transit, especially when items are stacked.
- Small or loose items should be placed in an inner container or plastic bag to avoid the items separating during transportation.

PACKING METHODS

Basic Packing Method

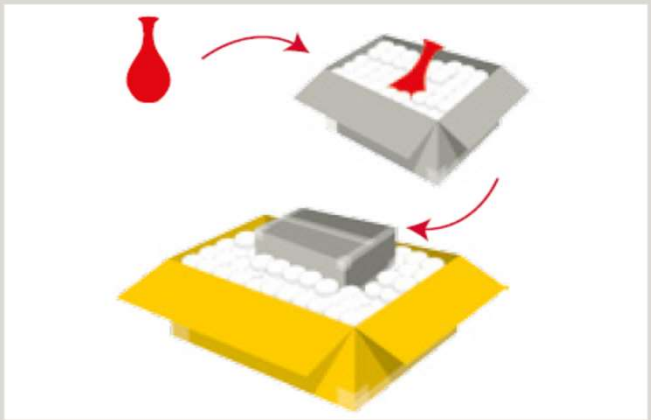
Protection Level: ■□□
Suitable for most non-fragile articles (e.g. printed matters, machinery parts, metal parts etc.)



- We recommend preparing a double wall box, but if using single wall, ensure your box has suitable strength for the weight of its contents.
- Items that may be affected by moisture and staining should be placed into a strong plastic bag or container for extra protection.
- Ensure your items are placed centrally in the box with at least 6cm of separation from any of the external walls and corners.
- If shipping multiple items within a single box, ensure each one is wrapped individually and well separated from one another.
- Fill any void space to prevent items moving within the box during transport.

Box-In-Box Method

Protection Level: ■■■
The box-in-box method utilizes a second outer box to offer additional protection. It is useful for the transportation of more fragile items or where the inner box will be used for retail purposes.



- Both an outer and inner box will need to be prepared.
- We recommend using the original manufacturer's packaging as the inner box where possible. Alternatively, the inner box should be packed using the basic packing method outlined above.
- The outer box should be at least 14cm larger in all dimensions than the inner box to provide sufficient overpack protection. We recommend a double wall box but if using single wall, ensure your box has suitable strength for the weight of its contents.
- Place approximately 6cm of void fill in the base of the outer box before centrally placing the inner box inside.
- Restrict any movement of the inner box by filling void space on all sides before sealing the outer box ready for transportation.

LIQUIDS & POWDERS

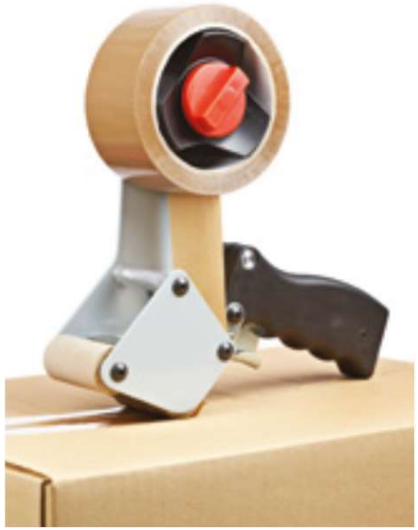
Liquids	Semi-liquids, greasy or strong smelling substances	Powders and fine grains
		
Ensure **liquids** are contained in leak-free containers and protected with strong internal material such as styrofoam. Seal in a plastic bag before putting into a strong double wall box.	Seal **semi-liquids, greasy or strong-smelling substances** with adhesive tape. Wrap in grease-resistant paper before putting into a strong double wall box.	**Powders and fine grains** should be placed in strong plastic bags, securely sealed and then packed in a rigid fiberboard box.




Liquids / Glass Bottles specifically need strong tensile strength packaging boxes and fillers to avoid handling damages

SEALING YOUR PACKAGE

A good seal helps to protect your package during transit. Both the adhesive tapes you choose and how you seal the shipment makes a difference in protecting your shipment contents from being exposed or damaged during transit.

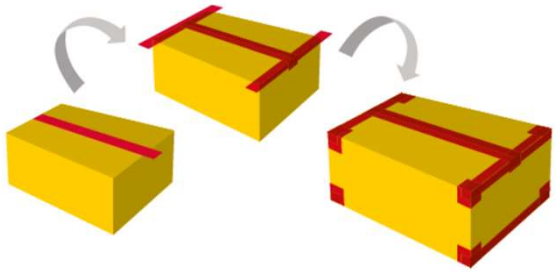


Use Pressure Sensitive Tapes

DHL recommends the following pressure sensitive tapes for their strength and durability:

- Polypropylene tape (brown plastic tape)
- Vinyl adhesive tape (electrical tape)
- Fiber-reinforced paper tape (duct tape)

Avoid Using:-



H-taping

- Ensure all seams are sealed using the H-taping method:
- Apply 1 strip of tape along the center seam
- Apply 2 strips of tape across both edge seams
- Apply more strips of tapes for heavier shipments
- Repeat the H-taping so that both the box's top and bottom seams are sealed

Strapping

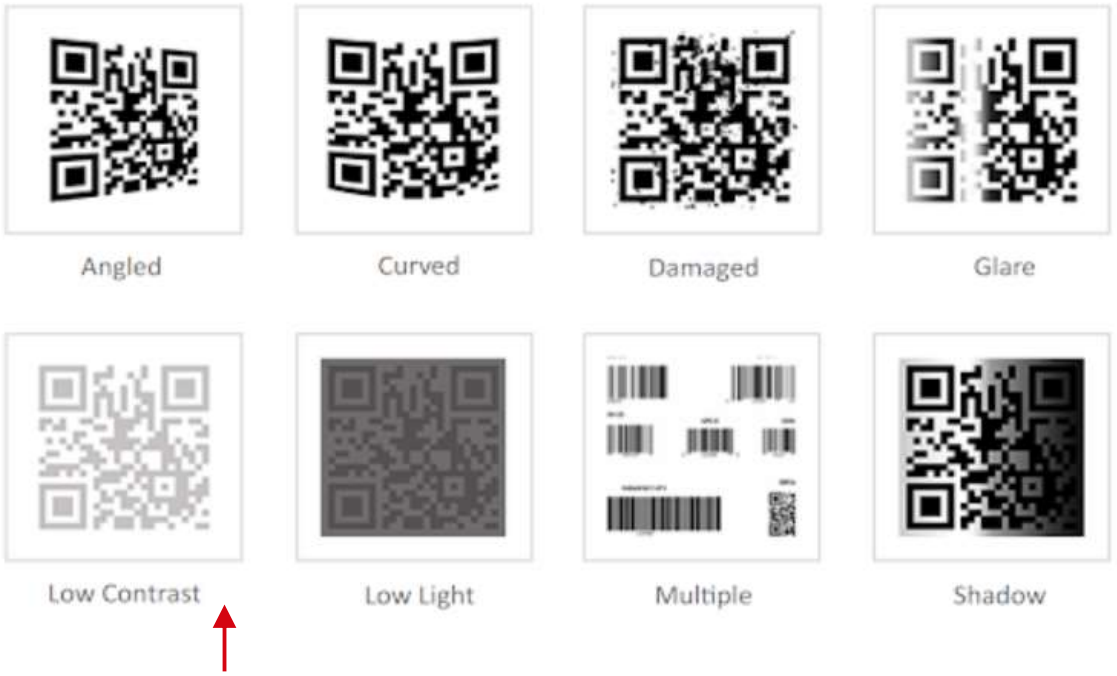
- DHL does not endorse the use of strapping or banding for items less than 30kg in weight as it can damage both our network machinery and the package itself.
- Suitable packaging should always be capable of carrying the weight of the items without the need for strapping.

APPLYING SHIPMENT LABEL

Displaying the shipment labels clearly is important in ensuring that your shipment moves swiftly through DHL's network. Below are a few key points to note:

- Fix the shipment label securely on the top surface of the shipment box. This will help us keep your shipment in an upright position as much as possible during transit! **It is best if you can use a Sticky Label**
- Ensure the label is wholly visible on one surface and that the label does not cover any seams.
- Do not let other labels, tapes or paperwork cover the shipment label.
- We never recommend using an old box but if you do, ensure all outdated shipment labels are removed prior to use.
- If you need to apply other labels on your shipment, please avoid placing them on the same surface as the shipping label.
- Writing your Shipment Id with permanent marker on your package, or adding some contact information inside your package will help us identify your shipment if the original label becomes detached or damaged.

SHIPMENT LABEL QUALITY



Examples of Bad Quality Label Prints

Poor Quality or Damaged Barcodes / QR Codes will lead to missed scans & delayed transit for your shipments.

Always Ensure Good Quality & Defect Free Labels!!