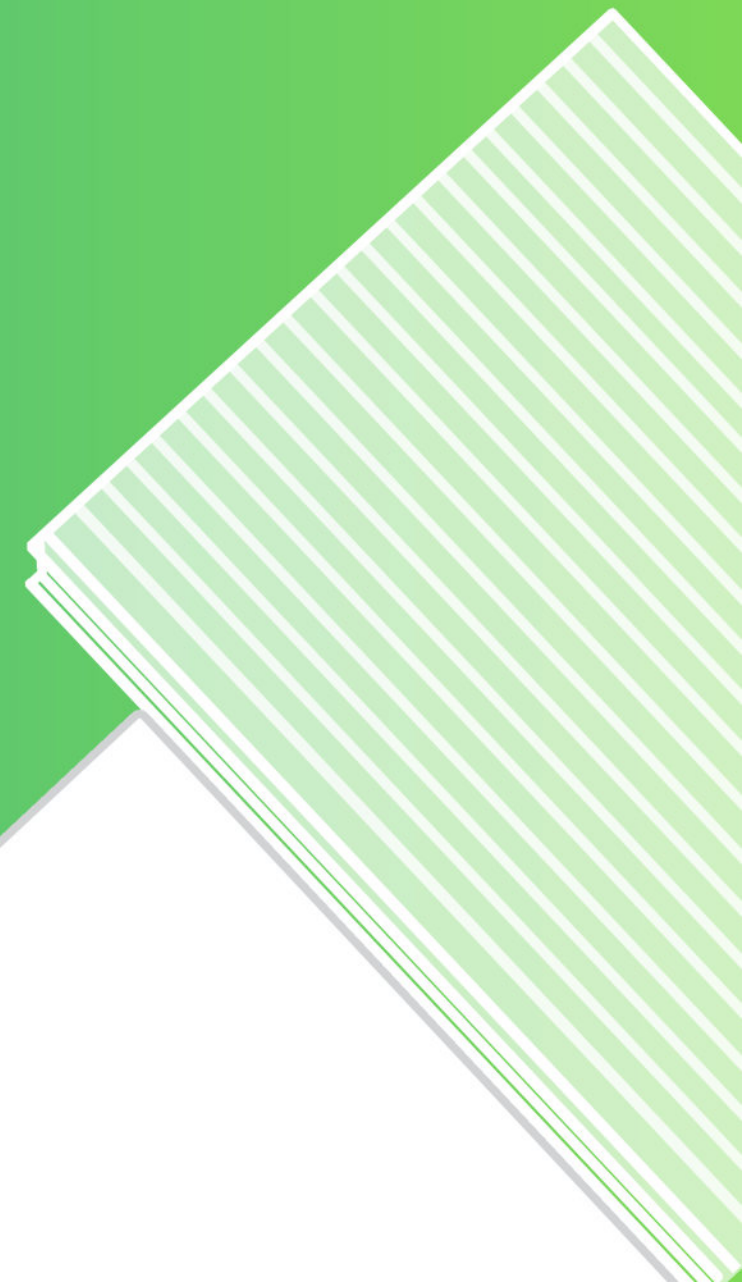


POLYREFLEX

**Innovative Plastic Sheet
and Box Maker**

**Lightweight, Recyclable,
High-Strength**



POLYREFLEX HI-TECH CO., LTD.

Office Add: PHASE 3 CUIDIWAN, NO.2 JUNMIN RD, ZHANJIANG,
GUANGDONG, CHINA P.C.: 524044

Plant Add: 2. NO.4 CHUNZHU RD, HOUJIE TOWN, DONGGUAN,
GUANGDONG, CHINA P.C.: 523949

Web: [Https:// www. polyreflex. com](https://www.polyreflex.com)

Tel. / Whatsapp: +86 13828266785

POLYREFLEX

Company Profile

Polyreflex specializes in manufacturing lightweight polypropylene hollow structure sheets, made from 100% non-toxic, eco-friendly, and recyclable materials, ensuring the health and well-being of both our customers and the planet. We are equipped with sheet production lines, processing lines, and lid and bottom pallet production lines, providing professional support for packaging, logistics and turnover products.

With over 15 years of experience in producing PP honeycomb bubble boards, plastic boxes, pallet containers, Polyreflex operates six production facilities in China and Vietnam. These are located in Dongguan, Guangzhou, Yichun, Wuxi, Binh Duong, and Bac Ninh. We take pride in being a trusted supplier to leading global companies such as Amazon, North American Plastics, SourceM, and FIVE STAR, a testament to the quality of our company and products.

Our Vietnam factory, by combining advanced production technology with lower labor costs, offers a highly competitive price-performance ratio for PP corrugated sheets, serving Southeast Asia, Oceania, and North American markets. We are not only a supplier of sheets but also a provider of finished products. We welcome you to join us in mutually beneficial cooperation.

Brand Inspiration

- Interconnected smiles of clients, suppliers, partners, and employees merge into infinite symbols, symbolizing endless innovation.
- Colorful products offer better living possibilities.
- Polyreflex: A thermoplastic reflection.



CONTENTS

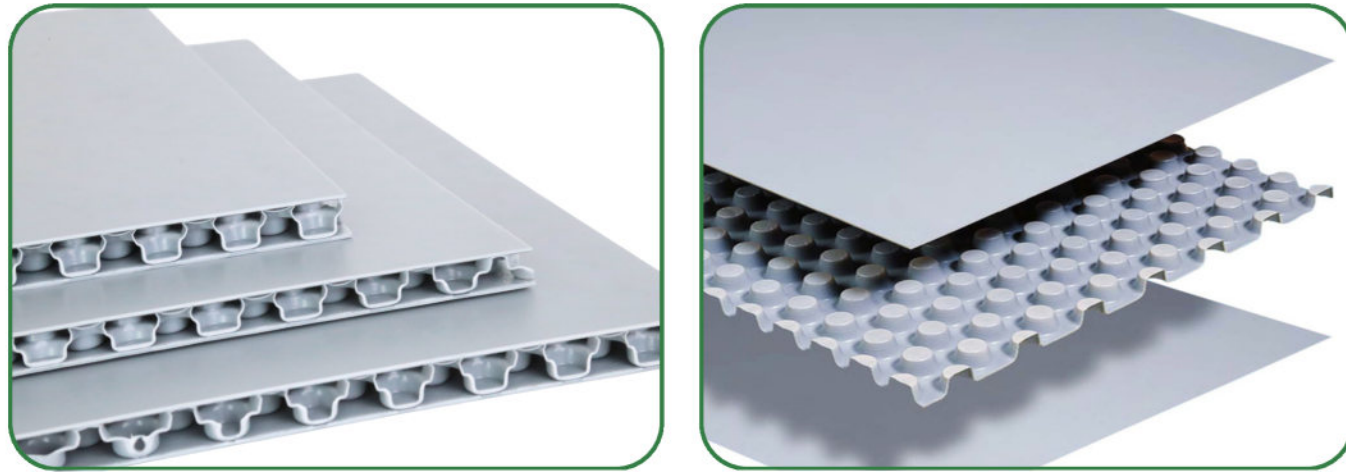
PP Honeycomb Panel	01
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Packing & Loading	24



PP HONEYCOMB PANEL

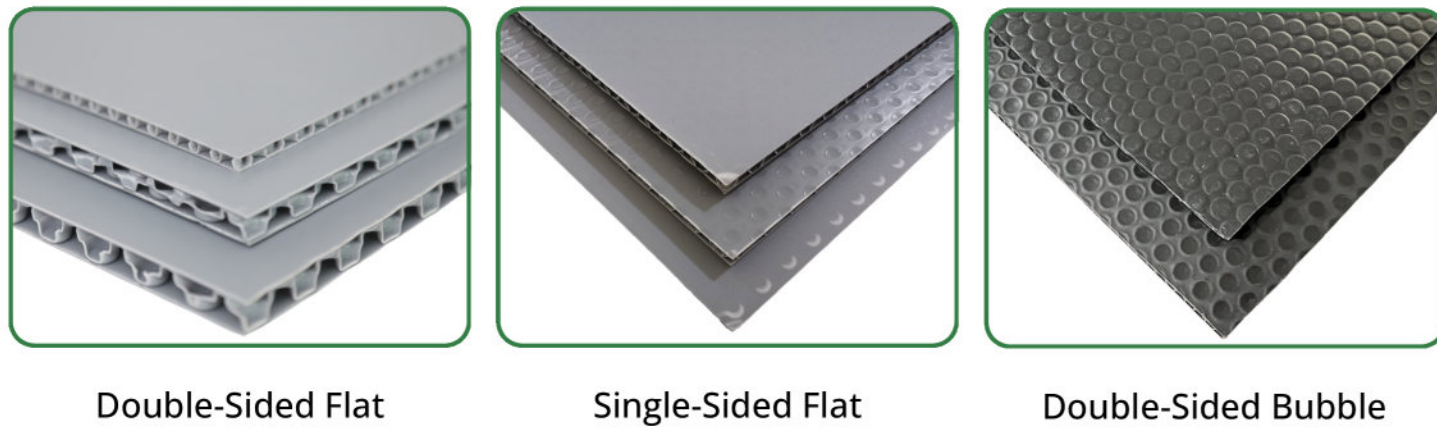
Polyreflex PP honeycomb panel is an ideal material for innovative packaging solution crafted from high quality polypropylene resin, featuring a unique honeycomb structure that ensures exceptional strength while remaining lightweight.

This design enhances durability and moisture resistance, promoting eco-friendliness through its recyclable materials. Ideal for diverse packaging applications, the PP honeycomb panel offers a cost-effective and efficient alternative to traditional materials, delivering superior protection and versatility.

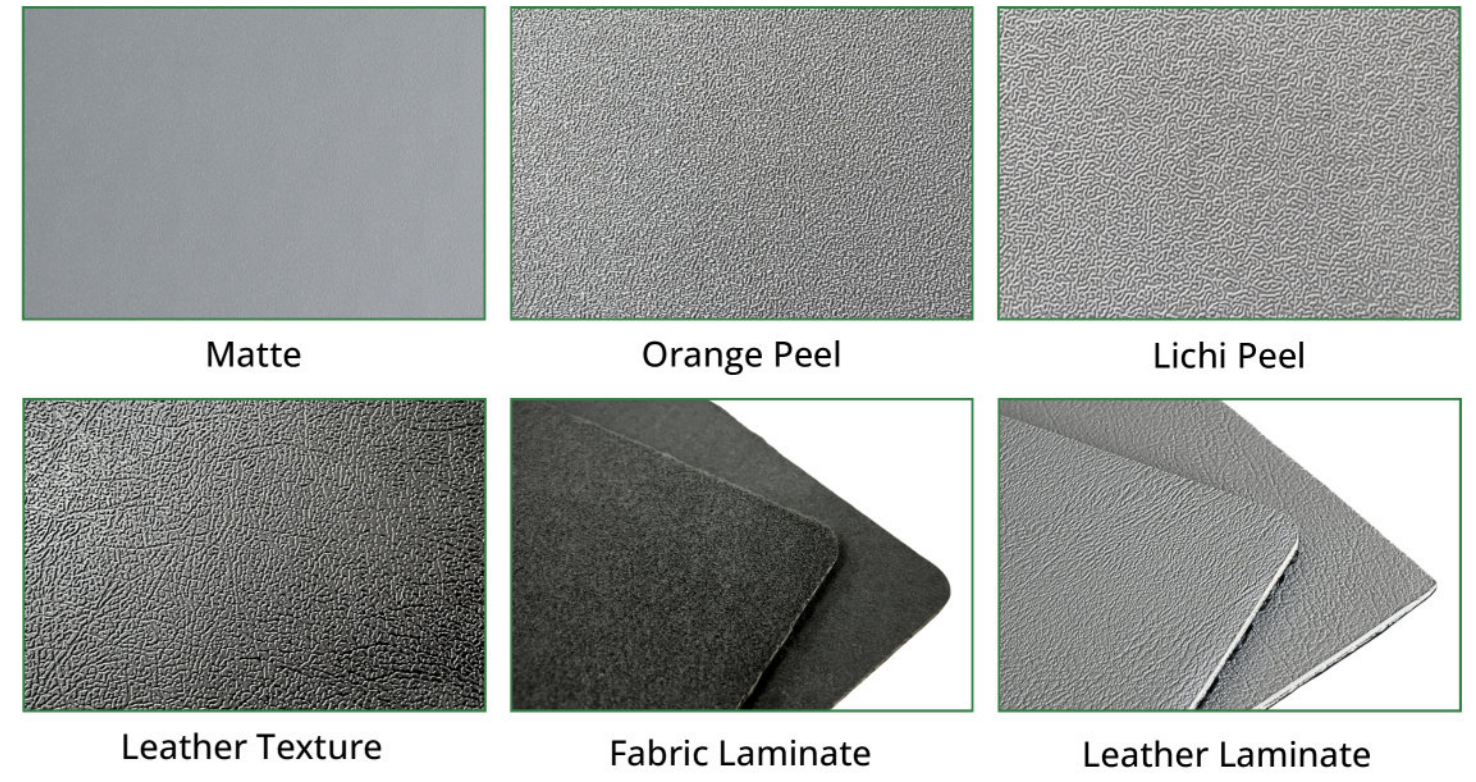


- 
Lightweight
- 
Moisture Resistant
- 
Stable Structure
- 
Impact Resistant
- 
Recyclable

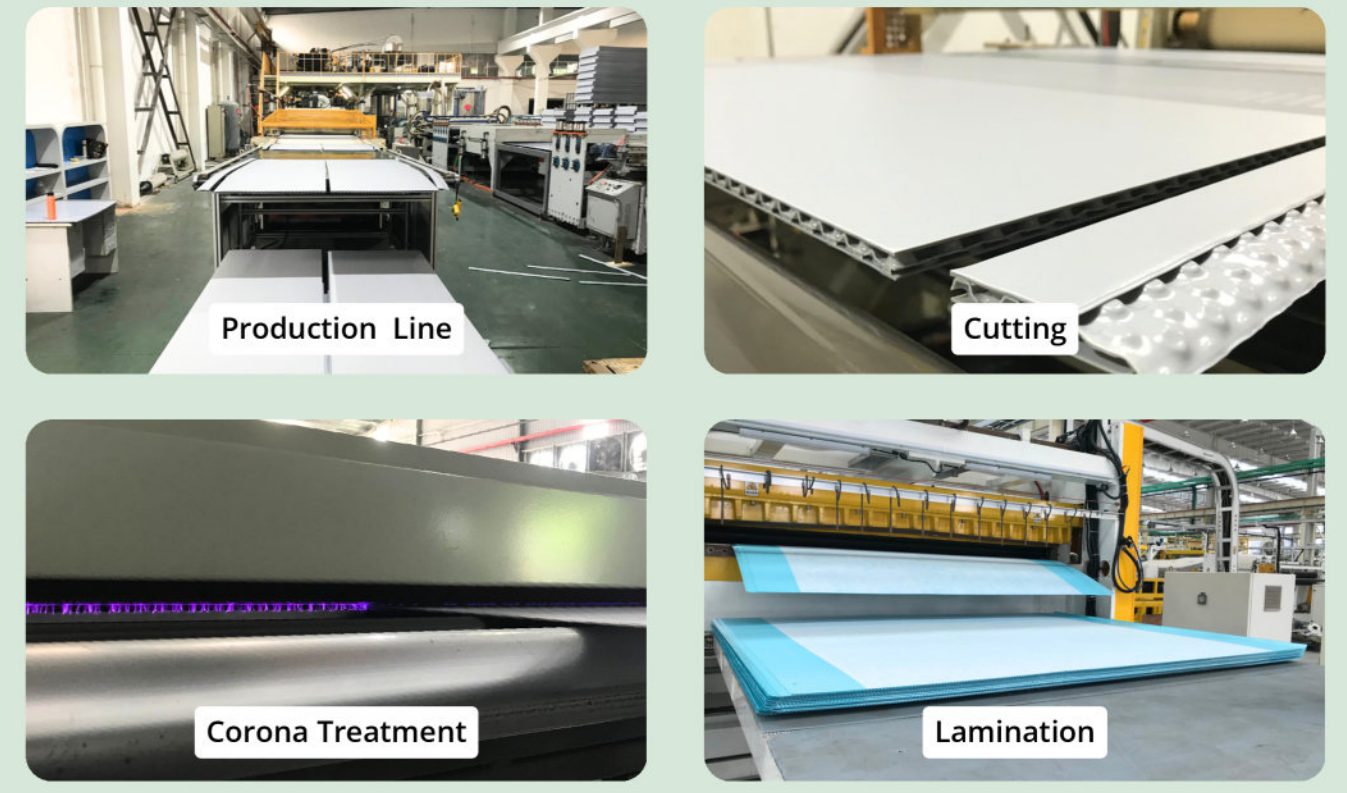
PRODUCT TYPES



SURFACE TYPES

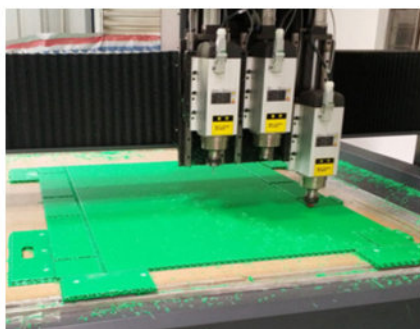


MANUFACTURING



PROCESSING

- We offer three advanced processing techniques — CNC engraving, die-cutting, and hot pressing — to provide precise cutting and shaping of PP honeycomb panels.



CNC Engraving



Die-Cutting



Hot Pressing

- We provide screen printing, digital printing, and laser marking to achieve high-quality graphics and intricate designs on PP honeycomb panels. These printing methods ensure vibrant branding and precise labeling, tailored to meet diverse customer needs.



Screen Printing



Digital Printing



Laser Marking

- We offer ultrasonic welding, edge sealing, and sewn edge finishing to ensure strong joints and enhanced edge protection for PP honeycomb panels.



Ultrasonic Welding

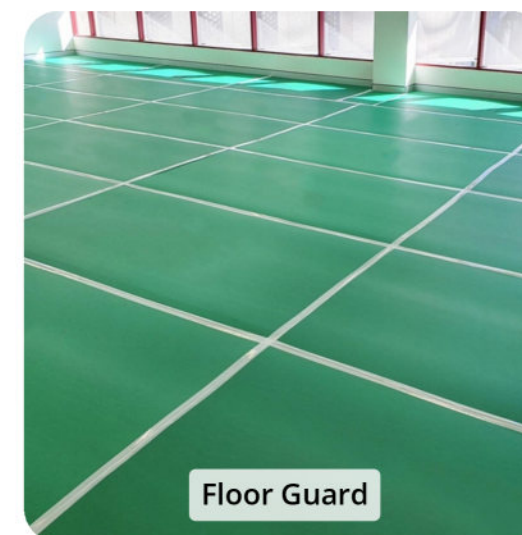
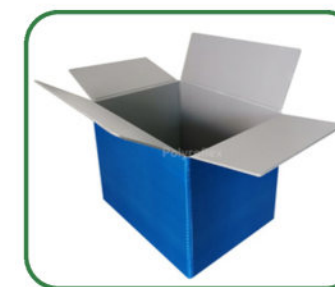


Edge Sealing (Round & Flat)

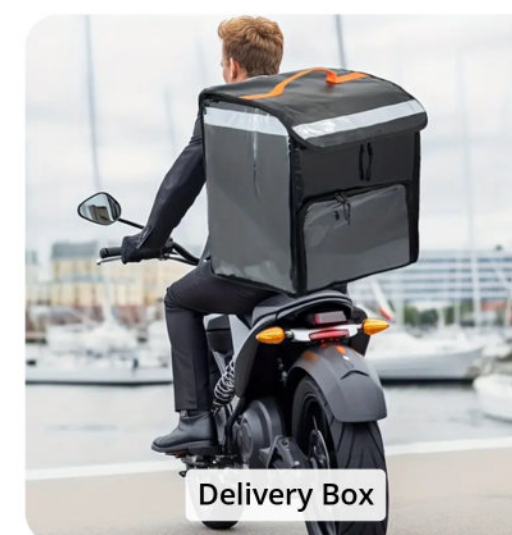


Sewn Edge Finishing

APPLICATION



Floor Guard



Delivery Box

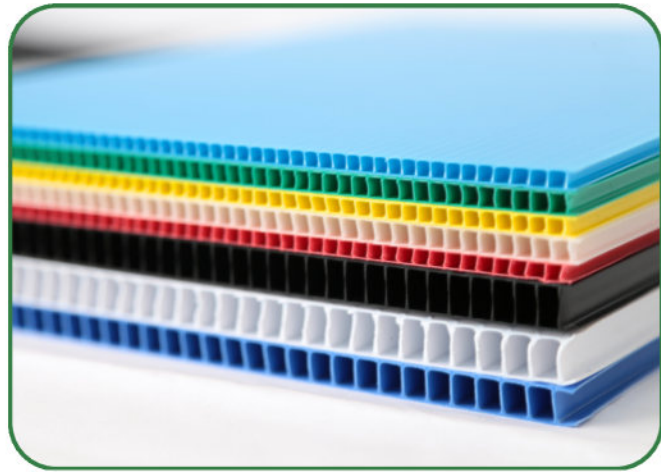
In addition to its packaging applications, the PP honeycomb panel is widely used in the automotive manufacturing industry for components such as van walls, ceilings, doors, trunk mats, and seat back panels.



PP CORRUGATED SHEET

Polyreflex PP corrugated sheet is a lightweight, durable, and versatile material made from polypropylene (PP), featuring a twin-wall and fluted core structure that provides excellent strength-to-weight ratio.

Its hollow design makes it rigid yet easy to handle, perfect for a variety of applications, particularly in the advertising display and packaging industries. Highly customizable, the sheet is also water-resistant, 100% recyclable, and eco-friendly, making it an ideal solution for both temporary and long-term use across multiple sectors.



Lightweight



Printability



Impact Resistant



Cost-Effective

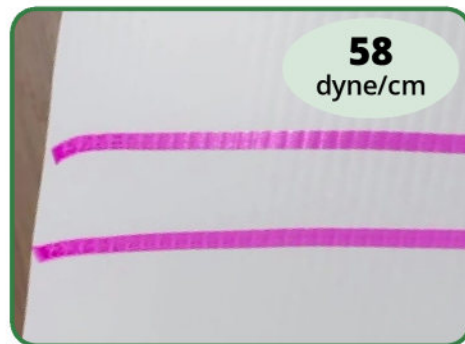


Recyclable

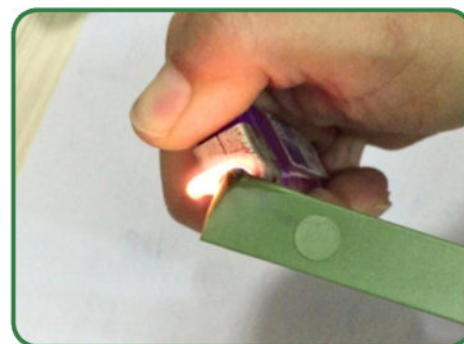
ENHANCED PERFORMANCE



Anti-Static Sheets



High Dyne Value Sheets



Flame-Retardant Sheets

MANUFACTURING



Polyreflex Vietnam Factory



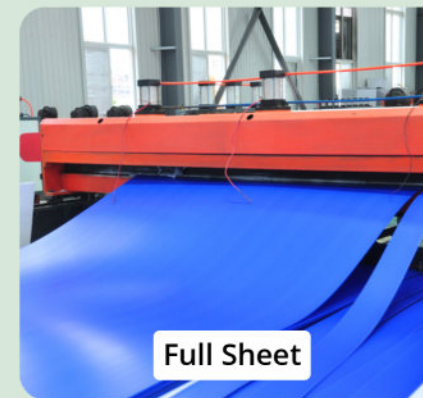
20 Production Lines



Processing Workshop



Warehouse



Full Sheet



Custom Size



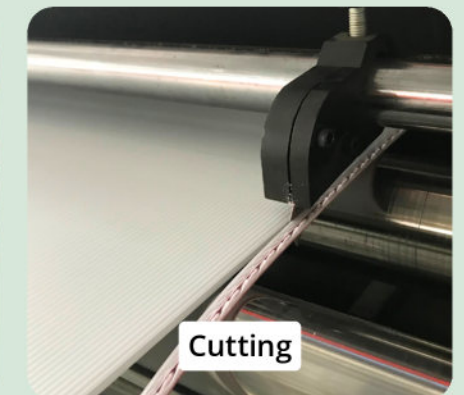
Packed in Roll



Polypropylene Resin



Corona Treatment



Cutting

PROCESSING

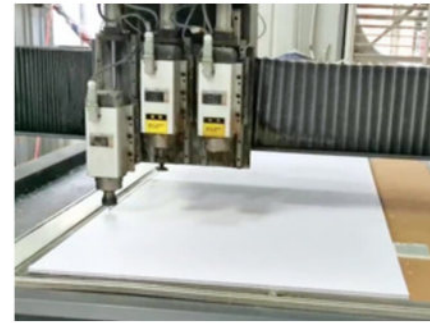
- Edge trimming, die-cutting, and CNC engraving, enable precise customization of PP corrugated sheets, ensuring they are perfectly squared, shaped to specific dimensions, and intricately designed to meet various application needs.



Edge Trimming

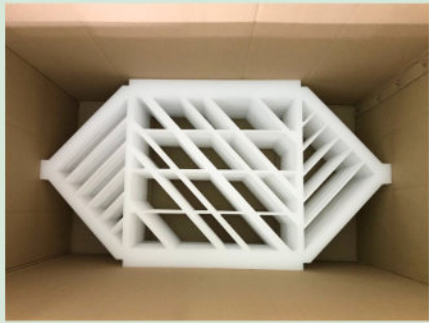


Automatic Die-Cutting



CNC Engraving

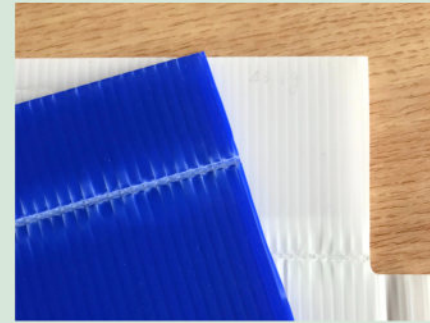
- Die Cutting includes cutting sheets to specific sizes or shapes, half-cutting for easy folding, and creating crease lines for added flexibility in assembly.



Full Cut



Half Cut



Crease Line

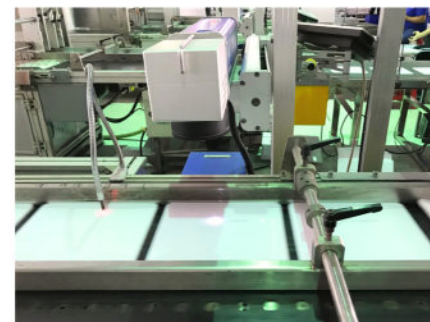
- Screen printing, digital printing, and laser marking, provide versatile printing and marking solutions for PP corrugated sheets, ensuring high-quality, vivid graphics for promotional materials and precise, permanent markings for detailed designs.



Manual Screen Printing

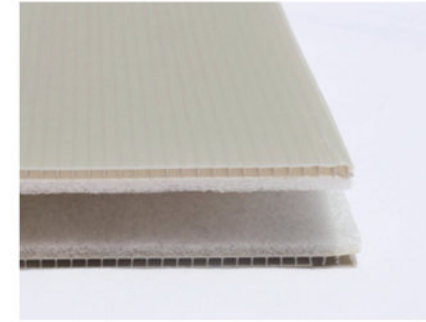


Machine Screen Printing

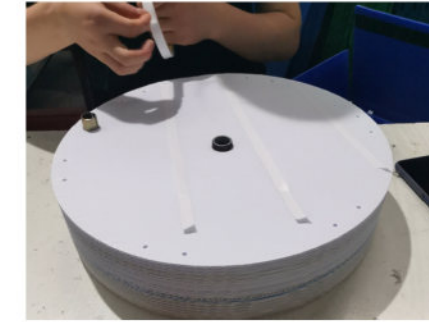


Laser Marking

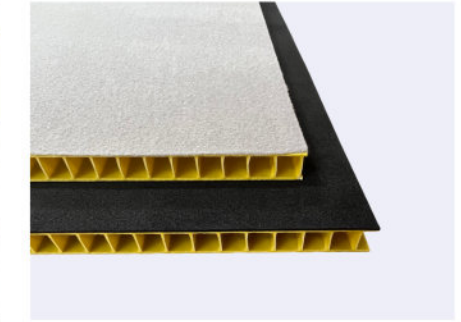
- Lamination/Adhesion techniques allow for the attachment of materials like tape, velcro, EPE foam, EVA foam, and fabric to PP corrugated sheets, providing enhanced protection, padding, and customization for packaging and other specific applications.



EPE Foam Laminate



Tape Laminate



Fabric & EVA Laminate

APPLICATION



Bottom Layer Pad



Divider



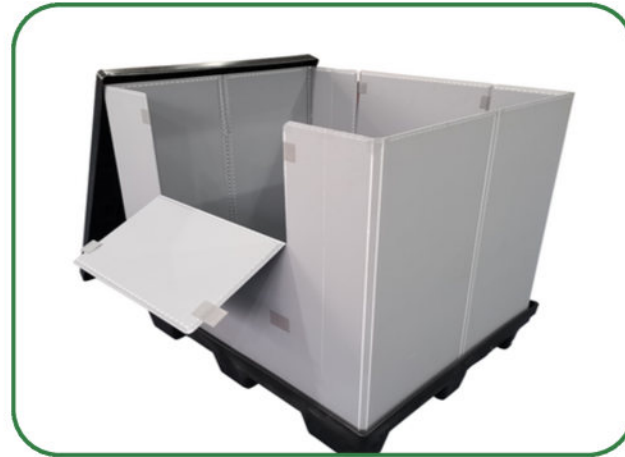
Formwork



PALLET CONTAINER

Polyreflex pallet container is expertly designed using durable and recyclable materials, making it an ideal solution for logistics and turnover systems. This innovative container offers efficient storage, protection, and transport for bulk goods and materials, significantly reducing packaging waste and operational costs.

Comprising three essential components, it features a robust HDPE lid and base that ensure long-lasting durability and recyclability. Additionally, the lightweight PP honeycomb pallet sleeve provides exceptional impact resistance, further enhancing the container's ability to withstand the rigors of transportation and storage.



Durability



Space Efficiency



Cost-effectiveness



Customizability



Recyclability

PRODUCT TYPES



M Fold (with PVC Profile)



M Fold



Z Fold



I Fold



C Fold



U Fold

FOLDING STEPS



1



2



3



4



5



6

MANUFACTURING CAPABILITIES



Production Workshop

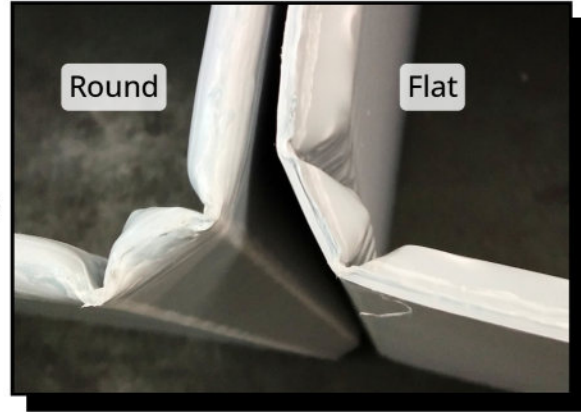


Production Line

MANUFACTURING PROCESS



a. Board Production: The pallet sleeve is made from lightweight PP honeycomb panels by extrusion technology for durability and impact resistance.



b. Edge Sealing: The edges are sealed for added strength and durability, with two options available: round and flat edge.



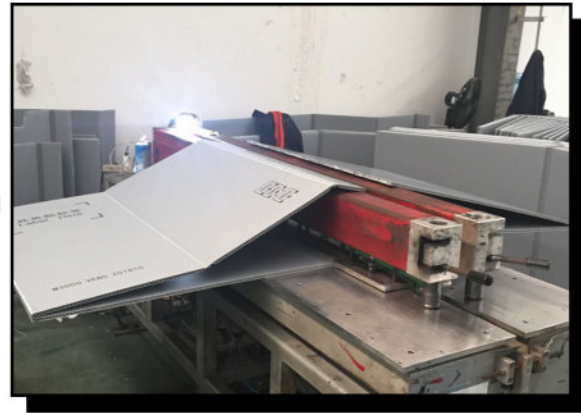
c. Die Cutting: High-precision die cutting ensures the pallet sleeve is shaped accurately to fit the container design.



d. Creating Door Openings: Small windows are cut into the sleeve, allowing quick access to the contents without fully opening the container.



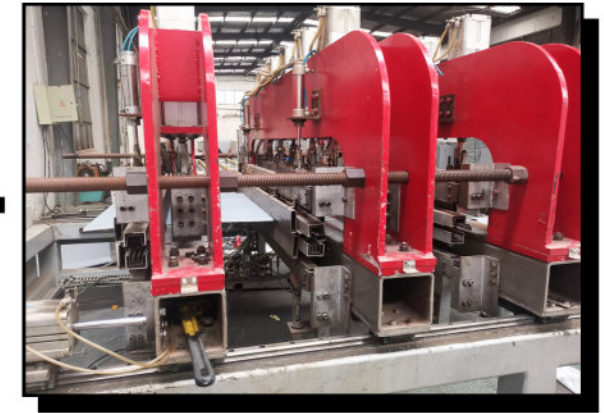
h. Attaching Velcro: velcro strips are attached to the door opening to hold it in place when accessing items, making it easy to open and secure the door.



g. Joining: The two ends of the sleeve are welded together to form a sturdy, three-dimensional structure that encloses the goods.



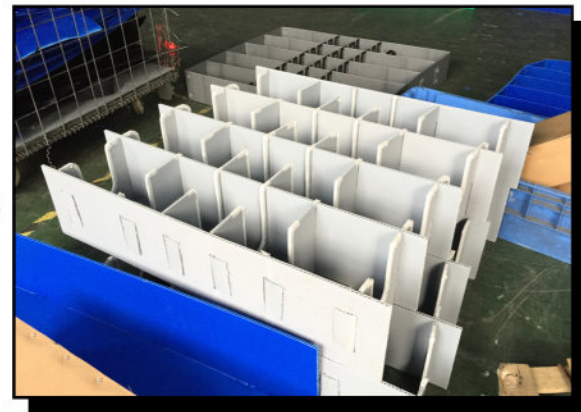
f. Printing: Custom printing options are available to brand the pallet sleeve with company logos or other identifying information.



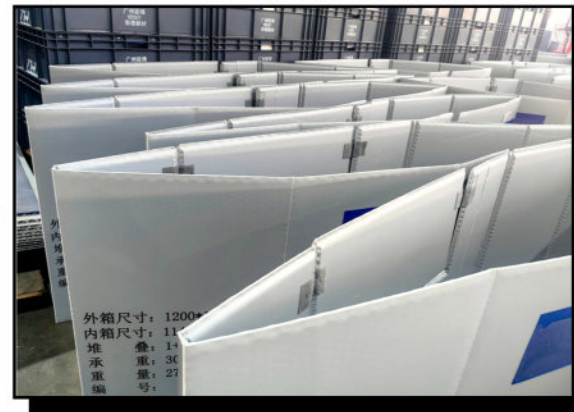
e. Bending: Specific folding lines are created on the pallet sleeve to allow it to be easily folded for compact storage when not in use.



i. Adhesive Document Pockets: Pockets are glued onto the sleeve to securely hold shipping labels or important documents.



j. Making Internal Dividers: Custom dividers are crafted to help users organize and protect items during transport in the pallet container.



k. Finished Pallet Sleeves: The image shows a batch of completed pallet sleeves, ready before packaging.



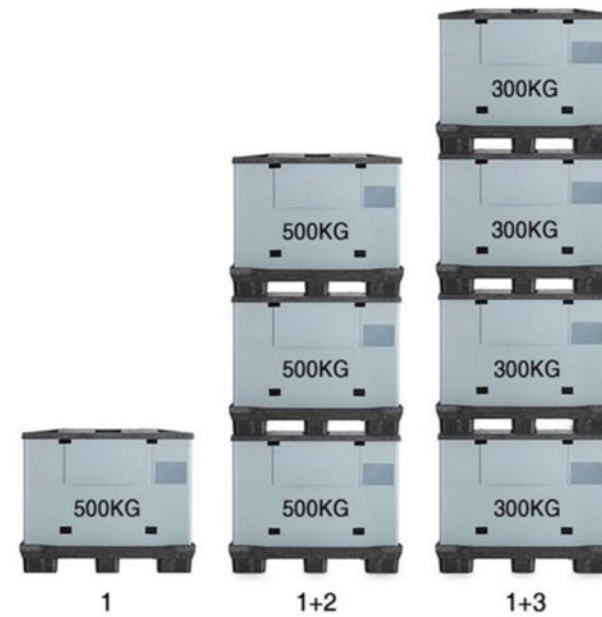
l. Packed and Ready for Shipment: Displays the pallet sleeves packed and prepared for loading and shipment.

STACKED LAYER

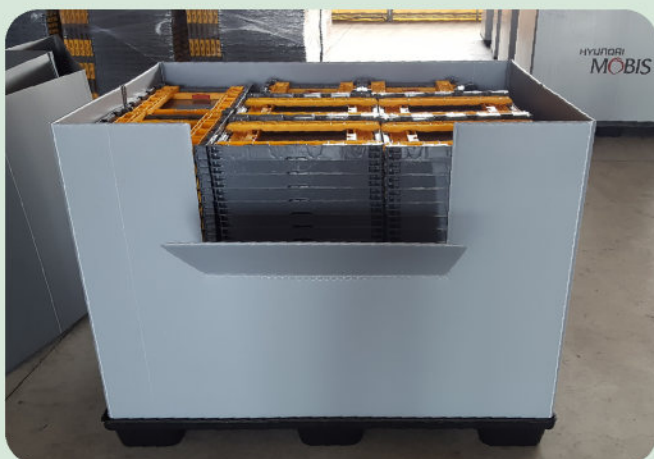
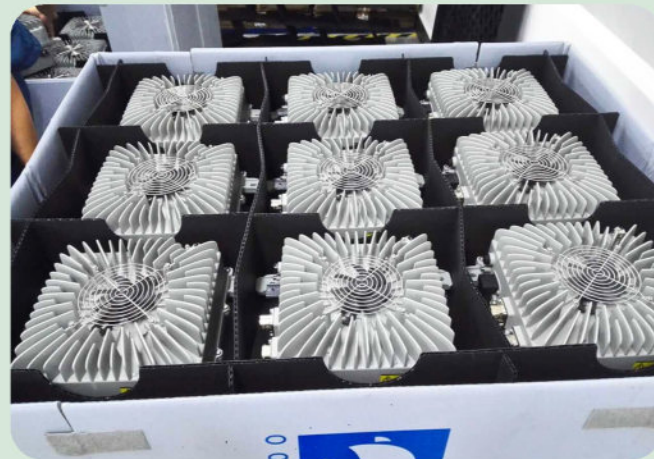
Our pallet containers are designed for efficient stacking in both dynamic and static conditions, optimizing space and storage.

- For dynamic loads, the containers can be stacked 2 to 3 layers high, supporting 100-500 kg per layer.
- In static storage, they can be stacked 2 to 5 layers high, with the same weight capacity.

This allows safe and efficient use in both transport and storage.



APPLICATION



PALLET & LID

Polyreflex Pallet and Lid are made of environmentally friendly plastic material HDPE through thermoforming. The two-layer hollow structure creates the advantages of light weight and high impact resistance for the lid and bottom. The bottom of the pallet can be entered by forklifts on all four sides, making it easy to load and transport. The bottom pallet has two types: nine-feet and with runner, which are suitable for different needs of conveyor belts racking system and other systems.



Stackable



Long service life



Monoblock



Chemical Resistance



Recyclable

SPECIFICATIONS

Polyreflex offers a wide range of Pallet & Lid size specifications to choose from, ensuring compatibility across various applications and industries.

Other specifications Polyreflex provides the customization service by making the new molds.

760x760	1140x750	1200x800	1230x830	1450x810	1640x1220
800x600	1150x760	1200x1000	1230x1030	1470x1140	1800x1150
980x930	1150x985	1210x1010	1240x1040	1470x1150	1840x1125
1058x1015	1150x1010	1220x1020	1300x1150	1480x1200	2070x1148
1100x1100	1150x1150	1220x1140	1350x1140	1600x1150	

PRODUCTION PROCESS

• BLOW MOLDING



Plastic Blowing



Mold Pressing

• VACUUM FORMING



Extruding Boards



Mold Pressing

• AUXILIARY TECHNOLOGIES IN THE PRODUCTION PROCESS

In the Pallet & Lid production process, auxiliary technologies can ensure precision and functionality. These processes optimize production efficiency, reduce waste, and ensure a perfect fit between the cover and base for reliable, high-quality products.



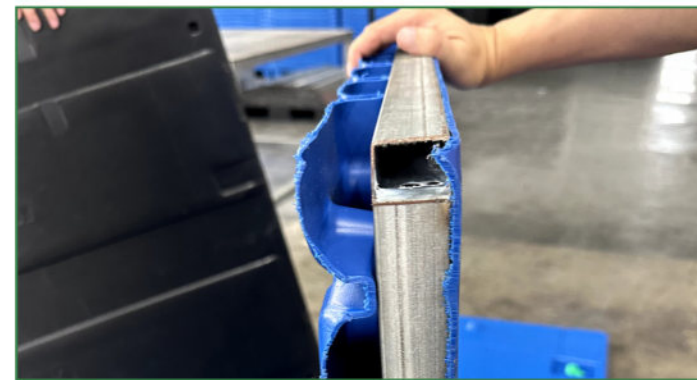
Cutting Edge Trims

Assembling Locks

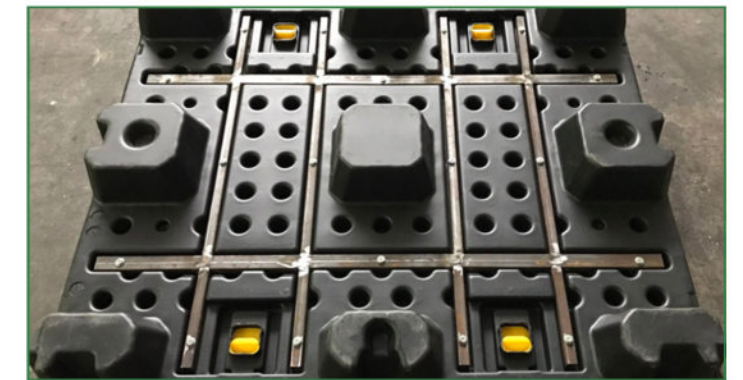
Banding Retractor

Drilling Holes

• PRODUCT PROCESSING TYPE

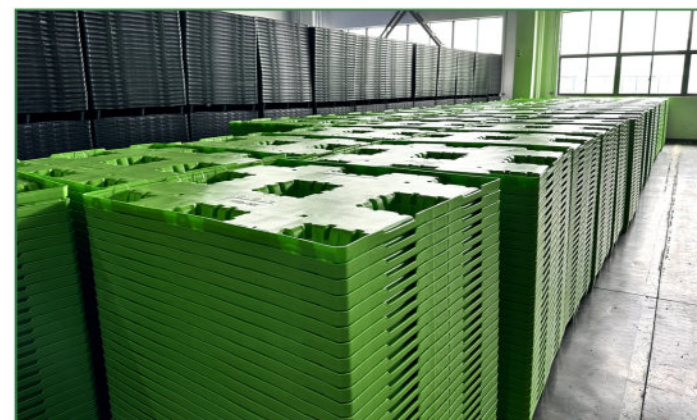


Built-in steel pipe



External steel pipe

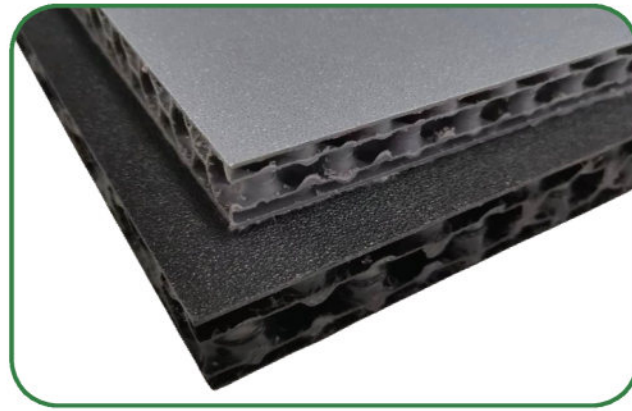
PALLET & LID WAREHOUSE



ULTRA-THICK HONEYCOMB BOARD

Polyreflex ultra-thick honeycomb board is a high-performance material made from polypropylene resin, featuring a thickness of 15mm or more. Its innovative dual-layer honeycomb core design ensures enhanced stability and superior physical performance, making it a robust choice for various applications.

Available in both single panels and laminated boards, this versatile product is ideally suited for use with sintered stone and quartz stone for countertops, as well as for wall panels and partitions, offering both functionality and aesthetic appeal.



Lightweight



Moisture Resistant



Stable Structure



Impact Resistant

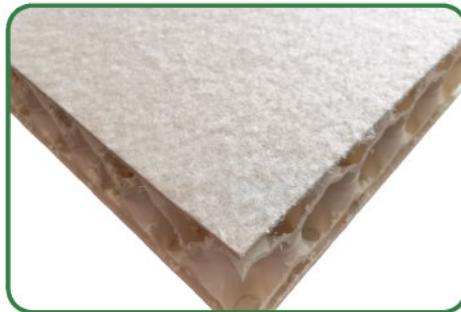


Recyclable

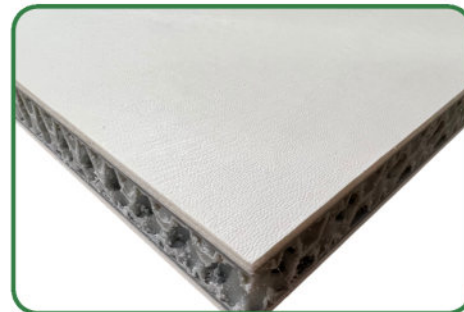
PRODUCT TYPES



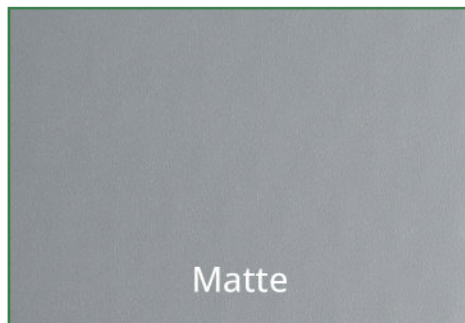
Single Board



Fabric Laminate



Leather Laminate



Matte



Orange Peel



Leather Texture

MANUFACTURING



PP VS ALUMINUM HONEYCOMB

Feature	Ultra-Thick PP Honeycomb	Aluminum Honeycomb
Weight	Lightweight, easy to transport, and install	Heavier, more difficult to handle
Strength & Durability	High load-bearing, durable core	Strong but can dent under impact
Moisture & Corrosion Resistance	Fully moisture and corrosion-resistant	Prone to corrosion unless treated
Thermal Insulation	Excellent insulation properties	Conducts heat, less insulating
Cost	More cost-effective, especially for large projects	Higher cost due to material and processing
Ease of Processing	Easily cut, shaped, and laminated; more flexible in customization	Requires specialized tools and processes
Applications	Furniture, partitions, countertops, and custom uses	Often used in aerospace, marine, and high-tech

- **Ultra-Thick Honeycomb Board (PP)** is a lightweight, moisture-resistant, and eco-friendly alternative to aluminum honeycomb board. Offering excellent thermal insulation, ease of handling, and cost-efficiency, it's ideal for furniture, countertops, and partitions, making it a durable and economical choice, especially in humid environments.

PLASTIC PACKAGING BOX

Polyreflex plastic packaging boxes are designed to provide durable and customizable solutions for a wide range of applications. Made from two material options — PP Corrugated Sheet and PP Honeycomb Panel — these boxes offer flexibility to meet different packaging needs.

PP honeycomb boxes are particularly strong, providing superior load-bearing capacity and enhanced safety compared to PP corrugated boxes. Both materials ensure that the boxes are lightweight, durable, and eco-friendly, making them ideal for various industries, while customization options allow for tailored designs to suit specific requirements.



Lightweight



Water Resistant



Impact Resistant



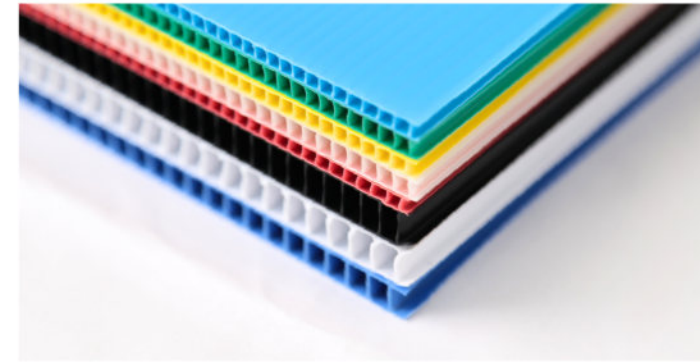
Customizable



Eco-Friendly

MATERIAL OPTIONS

PP Corrugated Sheet		PP Honeycomb Panel	
Thickness	Weight (gsm)	Thickness	Weight (gsm)
3mm	400-1000	3mm	800-1000
4mm	600-1250	4mm	1000-1200
5mm	700-1250	5mm	1200-1500
<ul style="list-style-type: none"> • Less gsm and better price, suitable for packaging light goods. • Suitable for non-weight-bearing internal dividers. • Various color options, and low MOQ. 		<ul style="list-style-type: none"> • The structure is more stable and higher gsm, which is suitable for packing goods with a certain weight. • More durable and longer service life. 	



PP Corrugated Sheet



PP Honeycomb Panel

PRODUCT TYPES



Carton Box Type



Foldable Type



With Edge Profiles



Self-supporting Type



With PP Dividers



With Flannel Dividers



With Padding



Iron Frame Type



Customized Type

MANUFACTURING

- Material Selection**

The process starts by selecting the appropriate material for the box. The thickness, weight, color, and performance requirements (such as anti-static, flame retardant, or cold resistance) are determined.



- Cutting the Material**

The sheets are cut into shape using die-cutting, hot pressing, or CNC engraving. Self-supporting boxes can be assembled at this stage without extra materials, as their structure allows them to be locked together and function properly.



Die-Cutting

Hot Pressing

CNC Engraving

- Box Jointing**

For non-self-supporting boxes, jointing can be done using various connection methods, including rivets, staples, ultrasonic welding, or seamless welding. These methods enhance the stability and durability of the boxes.



Staple Jointing

Ultrasonic Welding

Seamless Welding

- Handle, Closure, and Stacking Options**

Handles can be added for easier carrying, and velcro closures provide convenient access and compact storage when the box is not in use. For better stackability, reinforced corners and edge profiles can be added, enhancing both durability and stacking efficiency.



- Interior Protection**

To provide better protection and safety for the items inside the box, as well as to accommodate automated handling by robotic arms, internal dividers can be added to secure and organize the contents during transportation.



PP Corrugated Divider

EVA Divider

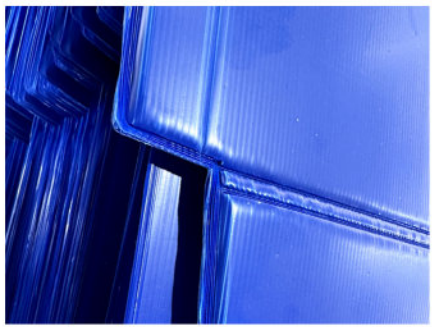
Aluminum Foam

- Printing and Branding**

For companies looking to enhance their brand image or display product information on the outside of the box, various printing options are available, including silkscreen printing, digital printing, CMYK printing, and laser marking. Additionally, processes like punching or laser etching can be used to display the company logo or corporate identity (CI) on the exterior of the box.



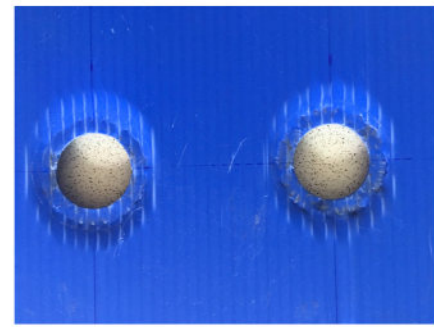
CUSTOM PROCESSING



Heat Sealing

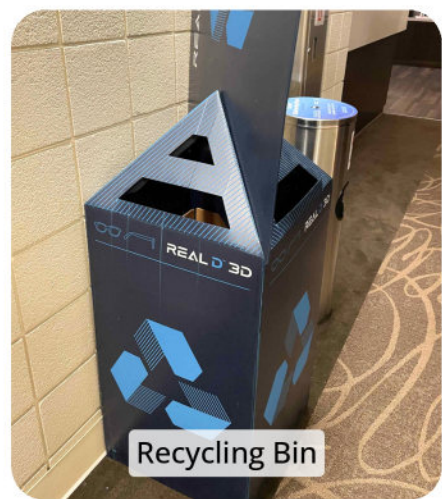


Ultrasonic Chip Embedding



Ultrasonic Hole Drilling

APPLICATION



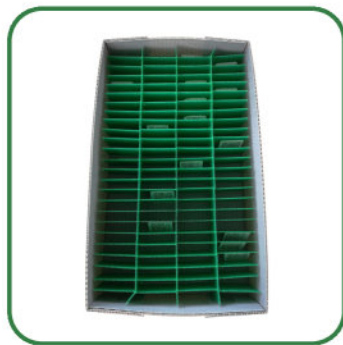
Recycling Bin



Bicycle Packaging Box



Leaf Collector



PACKING & LOADING

PACKING



LOADING

