

# SUSTAINABLE PACKAGING



*Green*



## GREEN PACKAGING

- Paper
- Recycled
- Bio-based
- Biodegradable
- 100% Compostable

# Kraft Paper Material

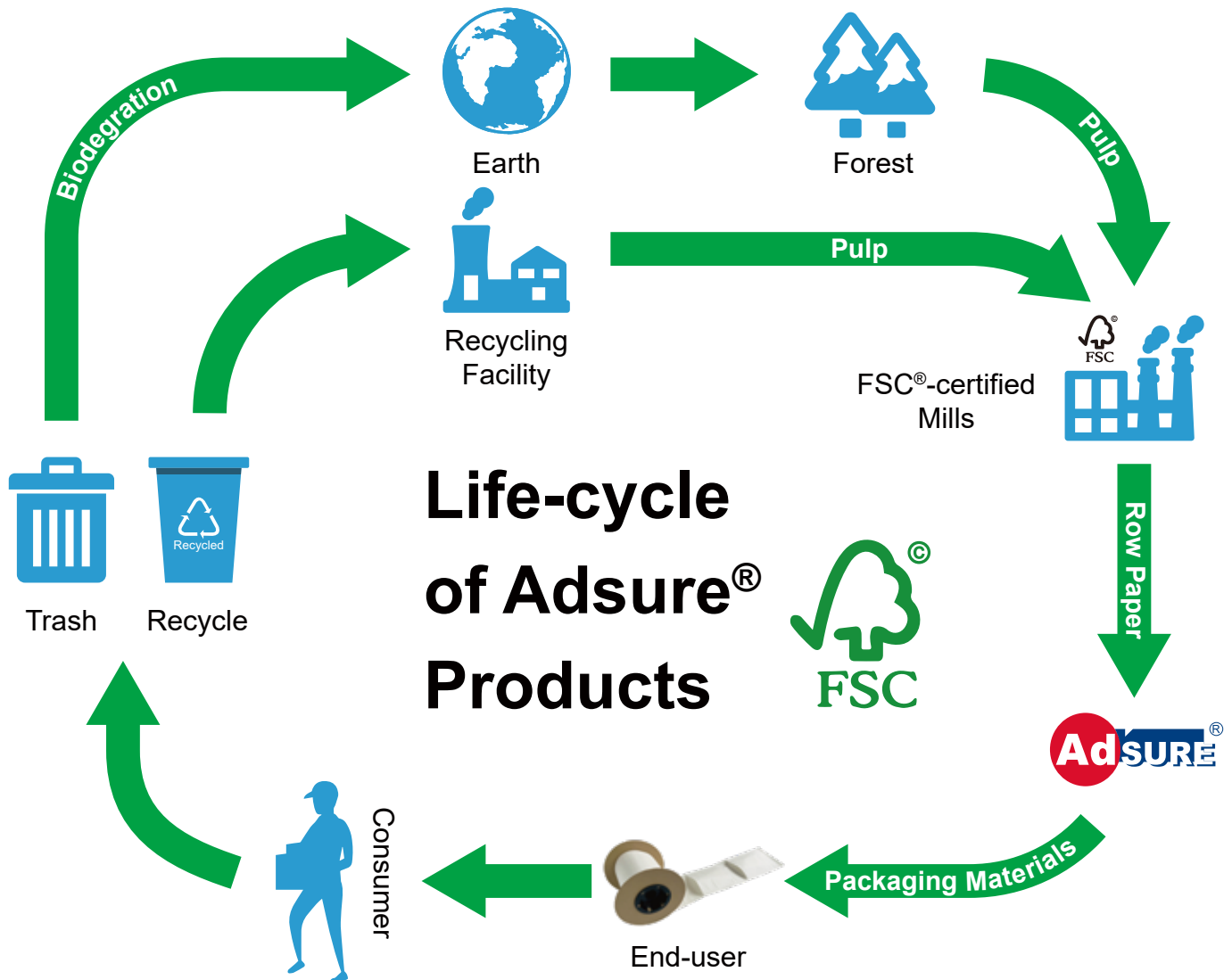
100% Kraft Paper (Mailers & Pre-opened Bag) is a kind of sustainable packaging solutions.

Crafted from eco-friendly Kraft paper, these mailers offer robust protection while minimizing environmental impact.

Perfect for conscientious businesses aiming to reduce their carbon footprint without compromising on quality.

## ADVANTAGE

- FSC Certifications
- Renewable resource
- Biodegradable & Versatile
- Drawbacks / Recycling



## Difference between FSC Kraft Paper and 100% Recycled Kraft Paper:

FSC Kraft paper typically employs virgin wood pulp as the raw material for papermaking, while 100% recycled Kraft paper utilizes recycled pulp. This is the primary distinction between the two.

FSC falls within the scope of forest green environmental certification, offering traceability; each type of FSC Kraft paper can be traced back to the forest from which the raw materials originated.

# Recycled Material

Recycled Material (Pre-opened Bag & others type packaging) is a kind of sustainable packaging solutions.

In accordance with customer requirements, incorporate diverse proportions of recycled materials to simultaneously address energy conservation and environmental preservation, while also maintaining the necessary product performance

**ADVANTAGE**

- Minimizing pollution
- Saves resources
- Reducing global warming
- Reduction in landfill
- G4S certificate



Recycled



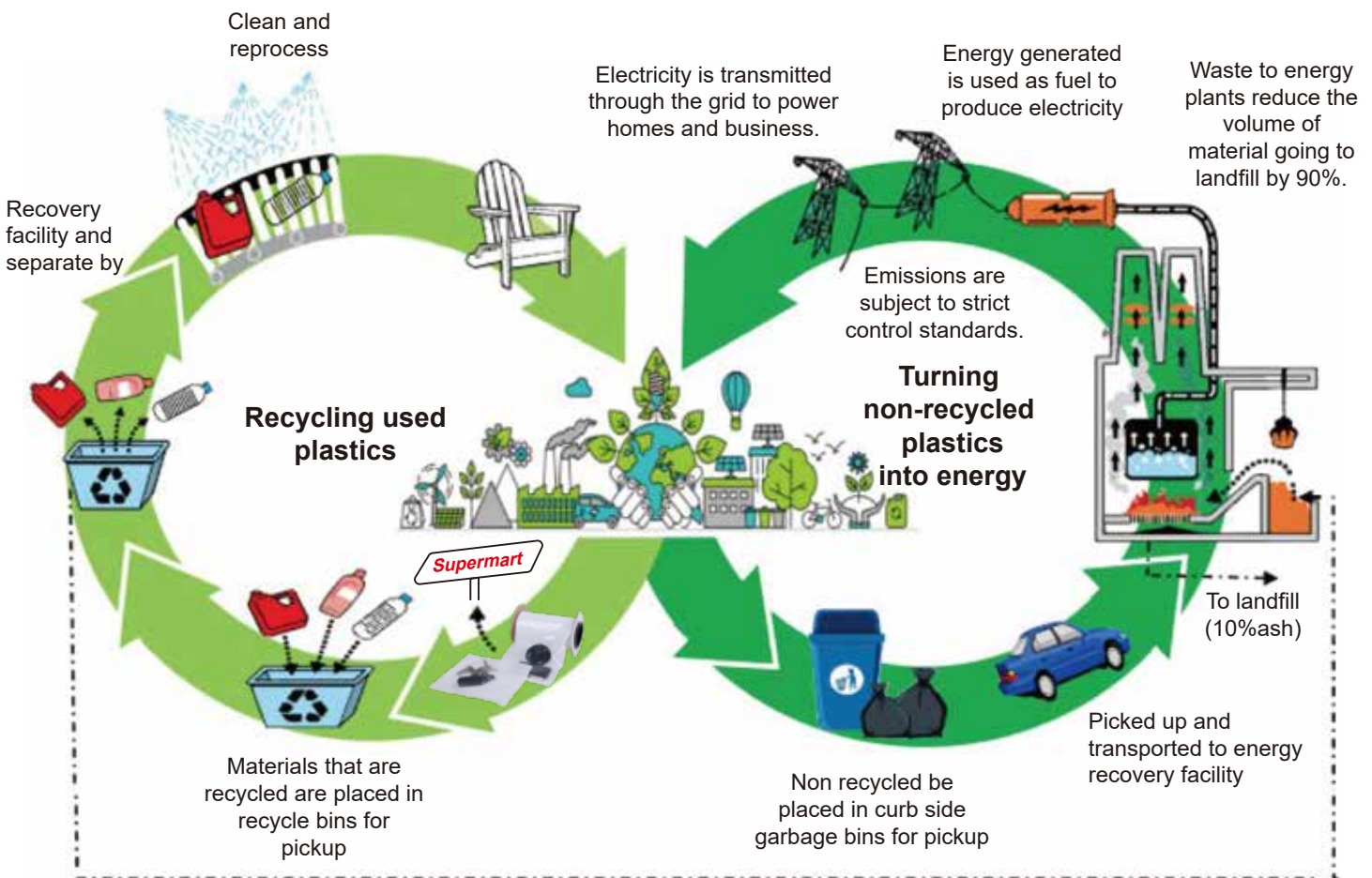
Weatherproof



Water-based Inks



Durable



## MATERIALS:

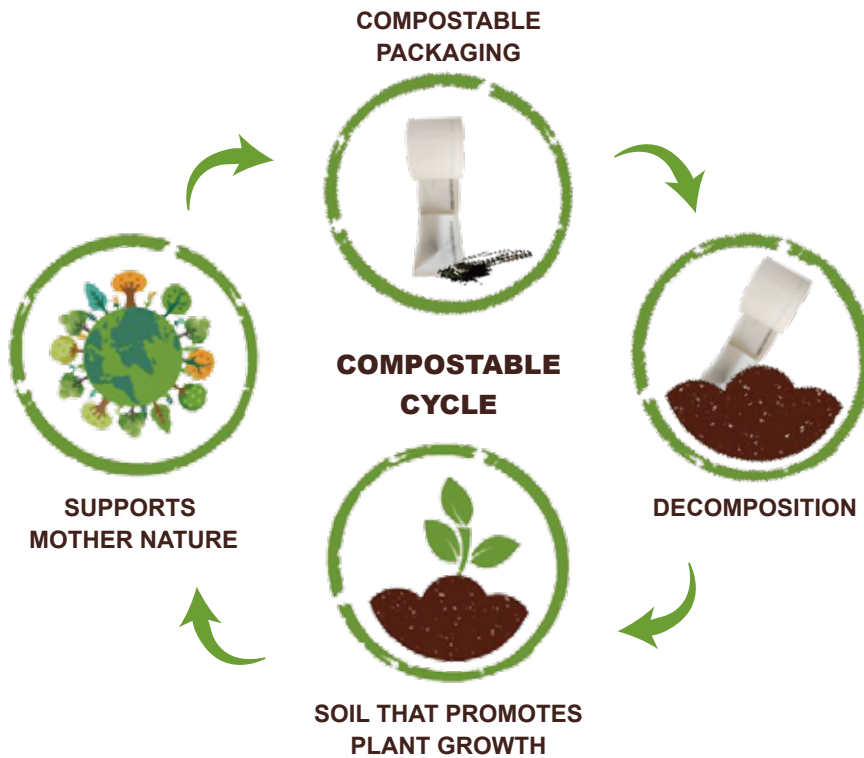
- **Post-Consumer Recycled (PCR):** Many of our bags are crafted from post-consumer recycled plastics, such as recycled LDPE / HDPE / PP / PET / PVC, sourced from discarded consumer products like bottles and containers.
- **Post-Industrial Recycled (PIR):** We also purpose post-industrial recycled materials, diverting manufacturing waste to create durable and eco-friendly bags.

# 100% Compostable Material

This plant-based, plastic-like material is derived from renewable resources like sugarcane. Waste products from harvesting sugar or maize (corn) are fermented, forming a substance similar to oil-based plastic, without environmental drawbacks.

## ADVANTAGE

- Sustainability
- Brand Reputation
- Plastic Pollution Mitigation
- Renewable Origins
- EN13432



## FEATURES:

- Microorganisms (such as bacteria or fungi) absorb the macromolecules as food and utilize them to fuel their metabolic processes.
- The Full Biodegradable material break down completely into carbon dioxide, water, and inorganic compounds and are incorporated into the natural cycle in a year.
- Package products safely and hygienically to eliminate contamination.
- Keep liquids away from the product or shield liquid products from the outside.
- Protect products from external influences and so contribute to a longer service life.

# BIO-BASED MATERIAL

Green PE is a renewable, sustainably sourced alternative to traditional fossil polyethylene, suitable for a wide range of rigid and flexible applications.

It helps to reduce the greenhouse gases emissions and preserve the environment.

At the end of its life cycle, it can be recycled in the current existing conventional polyethylene recycling streams

## ADVANTAGE

- Renewable Ingenuity
- Eco-Friendly Production
- A Green Carbon Footprint (Sugarcane capture CO<sub>2</sub>)
- The Epitome of Biodegradability
- Meets Sustainability Style



Carbon Emission	Normal Plastic	Green Plastic
Resin Production	1.47kg	1.35kg
Burning	3.10kg	0kg (#1)
Total	4.57kg	1.35kg



Content 12%



Content 60%

When products contain the requested % of Green PE and could get the authorization, below trademark could be used.



# OXO-BIODEGRADABLE ADDITIVE

A kind of low-cost and biodegradable additive.  
OXO-BIODEGRADABLE ADDITIVE is engineered to elevate the sustainability of plastic materials.



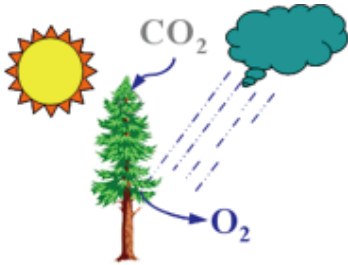
## ADVANTAGE

- Versatility
- Biodegradation Enhancement
- Mitigated Microplastic Generation
- Reduced Environmental Footprint
- Balancing Utility and Responsibility

## 1<sup>st</sup> Stage: Oxo-Degradation

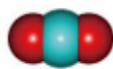
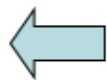


## Byproducts Back to Bio-Cycle



Photosynthesis...

## 2<sup>nd</sup> Stage: Biodegradation



Carbon Dioxide



Water

Biomass

## FEATURES:







- Time-Controlled Degradation
- No Change to Resins in Current Use
- No Change to Manufacturing Process
- Products can be Re-used, Recycled
- Completely Safe, Food Contact Compliant, NO HEAVY METALS
- Fractional Added Cost
- No change in the physical and mechanical properties of the plastic (prior to degradation)

## TESTING STANDARDS

Type	D2W	EPI
British Standard BS8472	✓	✓
American ASTM D6954	✓	✓
United Arab Emirates Standard 5009:2009	✓	✓
French Accord T51-808	✓	
ASTM D5208		✓

Variations and processes of full biocomposting and degradation

# What's the difference?

	Paper Material	100% Compostable	Biodegradable	Bio-based	Recycled	PE
Material	 Kraft Paper	 PBAT+PLA +Cornstarch	 EPI & D2W	 Sugarcane Green PE	 PCR/PIR	 PE
Captures CO <sub>2</sub>	100%	90%	0%	12% ~60%	0%	100%
ECO Friendly	100%	100%	70%	60%	100%	0%
Recycling rate	100%	0%	100% Prior to degradation	100%	100%	100%
Time of degradation	<b>Few months to 1 year</b>	Takes <b>1 year</b> against production Date	May take <b>1~3 years</b>	Varies years	Varies years	Varies years
Landfills Residue	<b>100%</b> Compostable without Residue	<b>100%</b> Compostable (5%-10%) Residue	Enable degradation some residue	NA	NA	NA
Certification	FSC	BPI, TUV, DIN CERTCO	ASTM D6954 / S208 BS 8472 FA T51-808 UAES 5009:2009	ASTM D6866	GRS 4.0	/

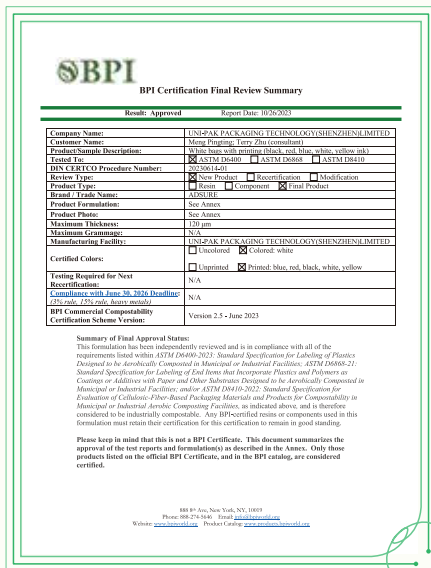
# Qualification certification



ISO9001



GRS



BPI



TÜV



DIN

