



Our Value to People & the Planet



Each day with
renewed commitment
**we create new value
through packaging**



Fuji Seal Packaging (Thailand) Co., Ltd.

Protecting Value through environmentally friendly concepts and processes

Our vision

Sustainable and profitable growth
in the packaging industry

Our Value to People and the Planet

Our proactive impact to realize
the Regenerative Society

Generate “Waku-Waku”
– No growth without “Waku-Waku” –

Guideline for Action

Changing along with changes

Our mission

**Fuji Seal will contribute to realizing
the Circular Society**

1. About us

2. Trend & Innovation

Global Coverage

Fuji Seal Network



Where is **Fuji Seal** today
and what next...

127

Year of experience

34

Manufacturing sites

43

Local Offices

5700+

Employees

2123

Million USD
Net Sales 2024

Fuji Seal Groups – ASEAN Region



THAILAND

Fuji Seal Packaging (Thailand) Co., Ltd.

- Head Office
- Bangpoo Factory (Flexible packaging)
- Sinsakhon Factory (Shrink sleeve label)



Fuji Seal Engineering Co., Ltd.

- Bangplee Factory (Machinery)



VIETNAM

Fuji Seal Vietnam Co., Ltd.

- Binh Duong Factory (Shrink sleeve label)



INDONESIA

PT. Fuji Seal Indonesia

- Jakarta Sales Office (Shrink sleeve label, PSL, and flexible packaging)



Our Certificates



Bangpoo Factory

Location of FSPT flexible packaging production including prepress production, 5 gravure printing machines, color proofing process, and R&D team.

FSSC 22000

Food Safety System Certification

GMP

Good Manufacturing Practice

HACCP

Hazardous Analysis and Critical Control Point

ISO 9001:2015

Quality Management System

ISO 14001:2015

Environmental Management System

ISO 45001:2018

Occupational Health & Safety

SEDEX



Sinsakhon Factory

Production site of our shrink sleeve labels with 3 gravure printing machines capable of printing up to 12 colors.

ISO 9001:2015

Quality Management System

ISO 14001:2015

Environmental Management System

ISO 45001:2018

Occupational Health & Safety

BRC Packaging Materials Issue 6

A Total Packaging Solutions Provider

 **Fuji Seal**
Integrated Solutions
in Decorative packaging

“ We Create New Value Through Packaging ”



**Shrink Sleeve
Label**



Flexible Packaging



**Application
Machinery**



Creating the best first impression for brands for 128 years

A System Solution Portfolio

The bigger Picture

- ❑ Higher shelf appeal?
- ❑ Longer shelf life?
- ❑ Uniform branding across your product range?
- ❑ Better recyclability?

With our global capabilities we offer:

- ✓ Package development
- ✓ Supply chain continuity
- ✓ Process performance



We will take care of your challenge!

Shrink Sleeve

Solution examples



Integrated Solutions
in Decorative packaging



Tamper
Evident



Oriented



Multi-pack



Partial



Cut-out



Underlap

Shrink Sleeve

Solution examples



Integrated Solutions
in Decorative packaging

Beverage bottles



Liquor bottles



Home personal care



Pharmaceutical



Food product



Chilled product



Dairy



Milk for home delivery

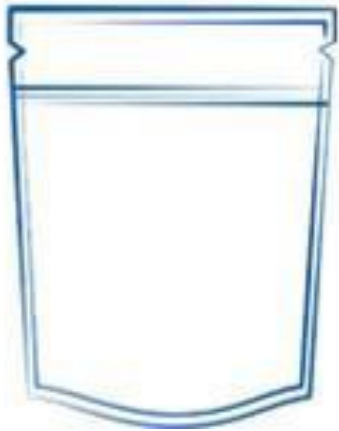


Flexible Packaging

Solution examples



Integrated Solutions
in Decorative packaging



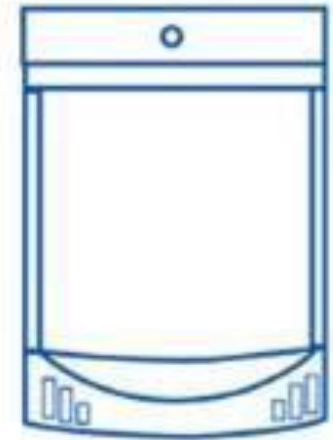
3 side seal
+ zip



Center seal
pillow pouch



Center seal
with gusset



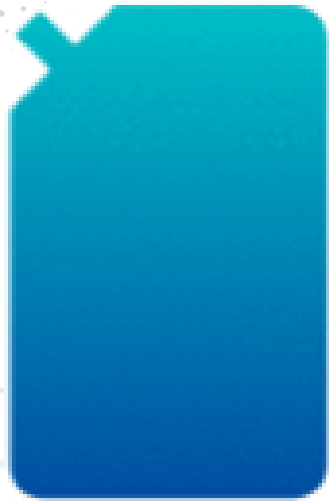
Standing
pouch

Flexible Packaging

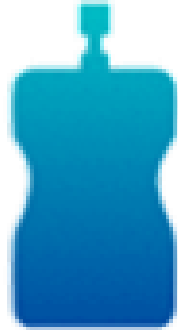
Solution examples



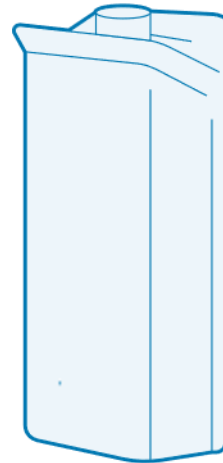
Integrated Solutions
in Decorative packaging



Spouted
Pouch



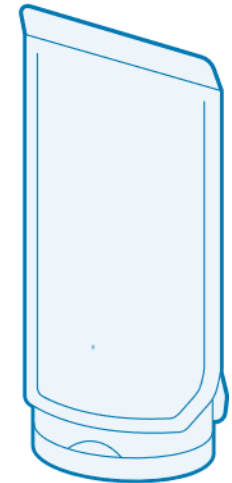
Mini Spouted
Pouch



Fuji
Pouch



Center
Spouted
Pouch



Inverted
Pouch

Flexible Packaging

Solution examples



Integrated Solutions
in Decorative packaging



Pet food

- Retort pouch
- Sachet retort
- Center Seal Gusset Pouch

HPC

- Spout pouch
- Standing pouch
- Shape pouch
- Fuji pouch

****New innovation****



Flexible Packaging

Solution examples



Integrated Solutions
in Decorative packaging

Food & Beverage

- Mini spout
- 3 side seal
- 4 Side Seal Gusset Pouch
- Center Seal Pillow Pouch



Machinery

Solution examples



Integrated Solutions
in Decorative packaging

Shrink Sleeve Systems

Linear Applicator

Speed : 24,000- 43,000
bottle per hour



Sleeve Applicator

Rotary Applicator

Speed : 54,000- 66,000
bottle per hour



Steam tunnel

Mid-High range of speed
2 pressure with 3-5 zones



Steam Tunnel

Dry Steam tunnel

Lower steam usage
100 - 150 kg hour



DR-H Auto Splicer



Reel Tower



De-Reel unit

PSL Labelling Machines

Single Head unit



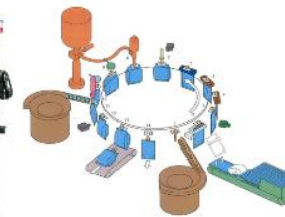
Linear Applicator



Rotary Applicator



Pouch Filling Machines



A close-up photograph of a hand placing a puzzle piece into a larger blue puzzle. The puzzle pieces are interlocking, and the hand is positioned at the top right, with the index finger pressing the piece into place. The lighting is bright, creating a strong blue glow and highlighting the texture of the puzzle pieces and the skin of the hand.

1. About us

2. Trend & Innovation

Trend and Innovation

"Evolving Food Packaging in Japan: From Trends to Technology"



Act on insights!!

Grow through challenges!!!

"Evolving Food Packaging in Japan: From Trends to Technology"

Macro Trends in Japan (2014–2024)

- **Aging population & solo households:**

Japan has one of the world's highest proportions of elderly citizens and a growing number of single-person households. This shift has created demand for smaller portion sizes, easy-to-open packaging, and meal formats that require minimal preparation.

- **Rise of convenience and RTD culture:**

Time-poor consumers are driving growth in ready-to-drink beverages, ready-to-eat meals, and single-serve pouches. Convenience store packaging formats have become a standard across various product categories.

- **E-commerce and portion control demand:**

Online grocery and D2C delivery growth requires durable, lightweight, and tamper-evident packaging. At the same time, consumers are seeking calorie- or volume-controlled packaging to match health-conscious lifestyles.

- **Environmental regulations and sustainability goals:**

Japan has introduced national packaging waste reduction strategies and plastic recycling initiatives. Brands are expected to reduce single-use plastics, adopt mono-materials, and offer refills or recyclable formats.



Act on insights!!

Grow through challenges!!!

"Evolving Food Packaging in Japan: From Trends to Technology"

Introduction to Spouted Pouch Format

What it is: A spouted pouch is a flexible packaging format that integrates a resealable cap or nozzle, allowing controlled dispensing of liquids, semi-liquids, or pastes. It typically features a gusseted base for stand-up functionality.



Act on insights!!

Grow through challenges!!!

"Evolving Food Packaging in Japan: From Trends to Technology"

Key Benefits:

- Portability: Ideal for on-the-go consumption, travel, and active lifestyles.
- Resealability: Enhances product longevity and user convenience.
- Plastic Savings: Up to 70–90% less plastic used compared to rigid bottles or jars.
- Space Efficiency: Pouches are stackable and collapse as contents are used, improving storage and transport efficiency.

Technology Advancements:

- Retort-capable films: Allow for high-heat sterilization for shelf-stable applications.
- Mono-material structures: Improve recyclability and meet regulatory targets.
- Fitment innovation: Spouts can be child-safe, angled for ease of use, or dual-functional (pour + squeeze).



Act on insights!!

Grow through challenges!!!

Fuji Seal spouted pouch business

- 25 years business experiences
- Fuji Seal is one of biggest spouted pouch manufacturing company
- Many different product categories



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in Decorative packaging



Medical Nutrition



Energy Jerry for Kids



Refill pouch for Detergent



Refill pouch for Mouthwash

Direct use



Car wash
With reusable
holder



Shampoo & Conditioner
With reusable holder



Dairy
& Sauce



Fuji Pouch



Beauty care
& Cosmetics



Refill pouch
for Handwash



Refill pouch for
Shampoo & Conditioner



Beverage

Flexible

Refill

2000

2010

2020



Beverage Spouted Pouch

Solutions examples

1. Portability & Convenience

- Lightweight and compact : fits easily in bags, lunchboxes, or pockets
- Ideal for **on-the-go consumption**, sports, travel, and outdoor use
- Can be consumed **without a straw or cup**, making it user-friendly across all age groups



2. Resealability

- Reclosable spout allows for **multiple servings**
- Prevents spillage and waste, especially in children's or functional beverages
- Maintains freshness after opening

3. Shelf Efficiency & Logistics

- Flexible, space-saving design maximizes **retail shelf space**
- Reduces transportation and storage costs compared to PET bottles or cartons
- Allows for **vertical or horizontal stacking**, improving display visibility



4. Material Reduction & Sustainability

- Uses up to **70–90% less plastic** than rigid bottles
- Lower carbon footprint during transportation due to weight and volume efficiency
- Increasing use of **mono-material** or **recyclable structures** meets eco-regulatory targets

5. Differentiation & Branding

- Unique format draws attention in crowded beverage aisles
- Wide printable surface allows **full-surface branding** and attractive design
- Enables **premium positioning** for functional, health, or lifestyle beverages



6. Versatility for Various Beverage Types

- Suitable for both **cold and ambient beverages** (e.g., smoothies, sports drinks, herbal tonics)
- Compatible with **aseptic or hot fill** processes for extended shelf life
- Often used in **portion-controlled formats** (e.g., 100ml–250ml)

Beverage Spouted Pouch

Solutions examples



Integrated Solutions
in Decorative packaging

Japanese spouted pouch Jelly market



- Most of products are produced at contract manufacturing companies
- Fuji Seal installed over 20 spout insertion lines to produce spouted pouch
- Fuji Seal is only company who supply both pouch & spout insertion system

- 30 Brand customers sell Jelly type pouch products
- The market volume is 900 mil products

Beverage Spouted Pouch

Solutions examples



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in Decorative packaging

Japanese spouted pouch Jelly market



Jelly Drink Pouches

The consumption of jelly drinks is diversifying across multiple occasions from sports and active lifestyles to quick breakfast alternatives, healthy snacks, and nutritional support during recovery or illness.

Spouted pouch technology is being widely adopted across various market segments to meet the specific needs of each consumer group:

Kids – Fun and easy-to-consume formats with nutritional value, quick breakfast, sweet

Men – Energy-boosting, Protein and functional formulations for fitness and daily performance

Women – Beauty and wellness blends tailored for active and health-conscious lifestyles

Older Adults - Gentle, easy-to-digest, nutritional support

Patients – Convenient, hygienic, and medically-formulated nutrition low calories diet

This flexible packaging format supports portability, portion control, and resealability — all while reducing plastic use compared to rigid alternatives.

Fuji Pouch

Solutions examples

A Flexible pouch with the properties of a rigid container



Integrated Solutions
in Decorative packaging

Applications in Japan:

- Food & Beverage:**

Soy sauce, miso paste, health drinks, energy gels, smoothies

- Home Care / Refill Packs:**

Laundry detergent, dish soap, fabric softener

- Personal Care:**

Shampoo, conditioner, liquid soap, body wash

Why Fuji Pouch Compact for small urban homes

- Space-efficient on shelves and in storage
- Lighter than rigid bottles → lower transport cost
- Eco-aligned: often used for refill packs/Replace unit to reduce plastic usage



Fuji Pouch

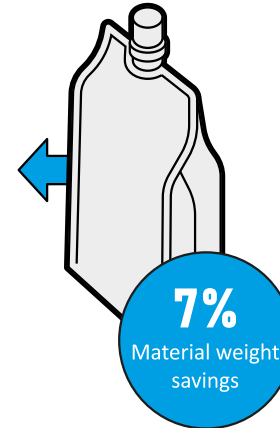
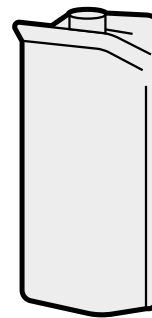
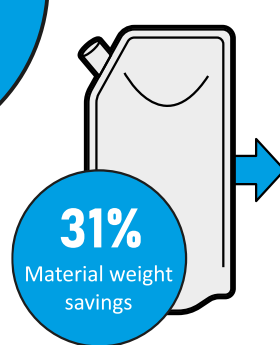
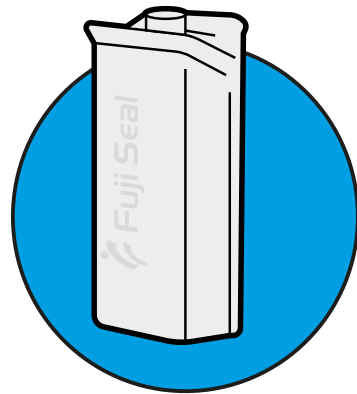
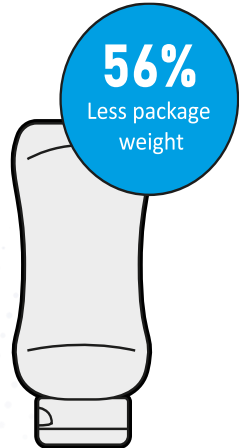
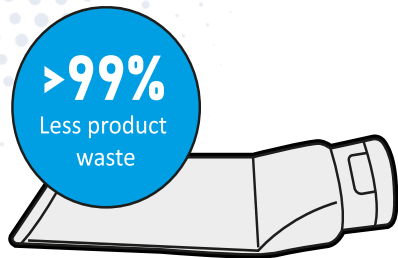
Solutions examples

A Flexible pouch with the properties of a rigid container



Integrated Solutions
in Decorative packaging

Compare to rigid container



Fuji Pouch

Solutions examples

A Flexible pouch with the properties of a rigid container



Integrated Solutions
in Decorative packaging

In Japan, **Cook Do 香味ペースト 500 g** is currently packaged in Fuji Pouch **500 g**, ideal for both home and professional use.

Packaging Advantages at a Glance

Feature

Benefit

500 g spout pouch

One pouch lasts longer; ideal for heavy or frequent use

Squeeze-and-pour design

Precise dispensing, even mid-cooking

Screw cap

Keeps contents fresh; resealable

Shelf-stable

Convenient storage without refrigeration

Ergonomic structure

Tube-style pouch stays upright and easy to grip

Professional edition

Built for heavy-duty kitchens, balancing usage and convenience



Inverted Pouch

Solutions examples



Integrated Solutions
in Decorative packaging

Why are Brands considering Inverted Pouches?

Target Conversions



Inverted pouches



Sustainable

- Eco-Friendly
- Product to package ratio
- Reduced Food waste

Convenient

- Easy to hold & squeeze
- No spoon, no knife
- Light-weight and portable

Cleaner

- No Contamination
- Controlled dosing
- Empties completely

Disruptive

- Eye-catching shape
- Modern and trendy look
- Fun to use

Inverted Pouch

Solutions examples



Integrated Solutions
in Decorative packaging

Why are Brands considering Inverted Pouches?

Target Conversions



Inverted pouches



Inverted Pouch

Solutions examples



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in Decorative packaging



Variety products



Inverted Pouch

Solutions examples



Integrated Solutions
in Decorative packaging

Inverted Pouch Extends Product Life

- Pouch + Valve minimizes oxygen getting into the pouch
- Uses Aptar closure and valve technology
- Less oxygen extends product's color and taste
- Fuji Pouch uses Aptar's closures and valves



Report Pouch

Solutions examples



Integrated Solutions
in Decorative packaging

Retort Packaging Market in Japan – Expanded Insights

•Growth Drivers:

- Rising demand for **shelf-stable, convenient meals**
- Aging population and **solo living households** increasing reliance on RTE foods
- Retail and e-commerce boosting demand for **long shelf-life packaged goods**

Key Product Segments

- **Curry and Stew Meals:** Dominant driver in Japan due to high daily consumption
- **Soups and Broths:** Popular in elderly and health-focused diets
- **Ready-to-Eat (RTE) Meals:** Used across convenience stores and vending machines
- **Baby Food:** Safe, hygienic, and easy-to-carry format for working parents
- **Pet Food:** Premium and wet food products shifting from cans to pouches for convenience and storage benefits



Act on insights!!

Grow through challenges!!!

Report Pouch

Solutions examples

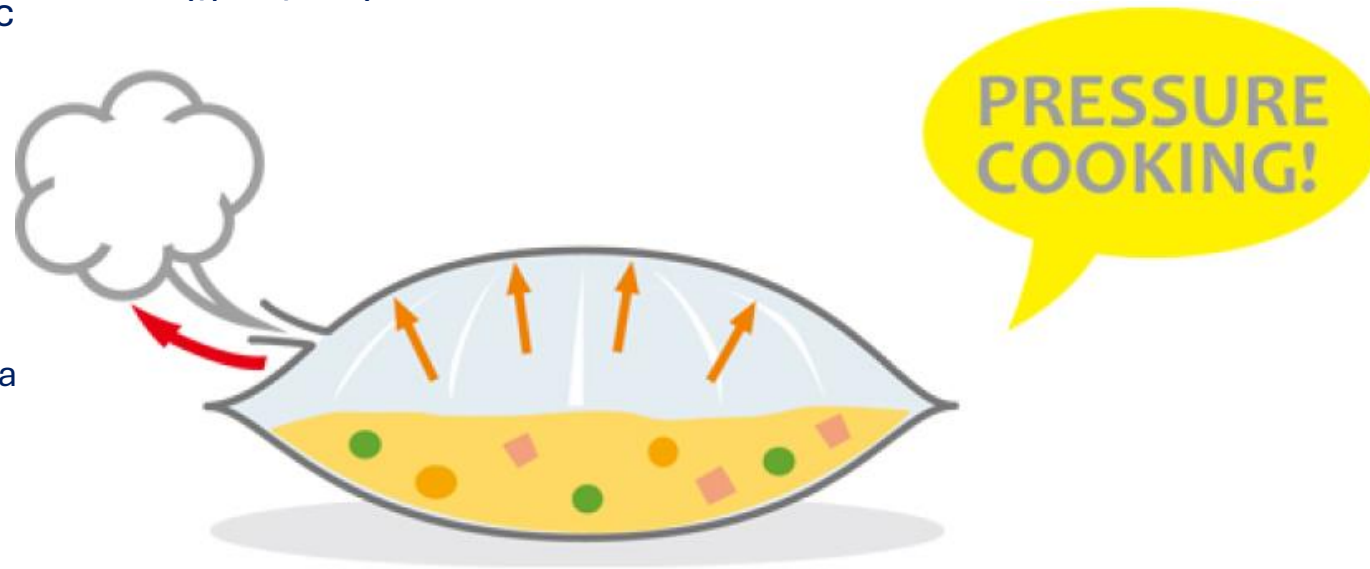
■ **Microwaveable** designs avoid using traditional aluminum foil.

Instead, they use:

- **AlOx/SiOx-coated PET:** Transparent barrier, microwaveable
- **Nylon (PA):** Toughness and flexibility during high-temperature processing
- **Non-metallic barrier films:** Allow safe reheating in mic

Features of Microwaveable Retort Pouch

- ✓ **Direct-to-microwave use** (no need to open)
- ✓ **Shelf-stable:** No refrigeration needed
- ✓ **Lightweight** alternative to can or tray
- ✓ **Improved safety** with vented seal or laser score
- ✓ **Transparent window (with AlOx/SiOx)** for consumer appeal



Microwaveable Retort Pouches Handle Internal Pressure: Fuji Seal Self Venting Pouch

When a retort pouch is designed for **direct-to-microwave use without opening**, it must safely **release steam** to prevent the pouch from bursting. This is done through **smart venting technologies** built into the pouch structure or seal.



Act on insights!!

Grow through challenges!!!

"Evolving Food Packaging in Japan: From Trends to Technology"

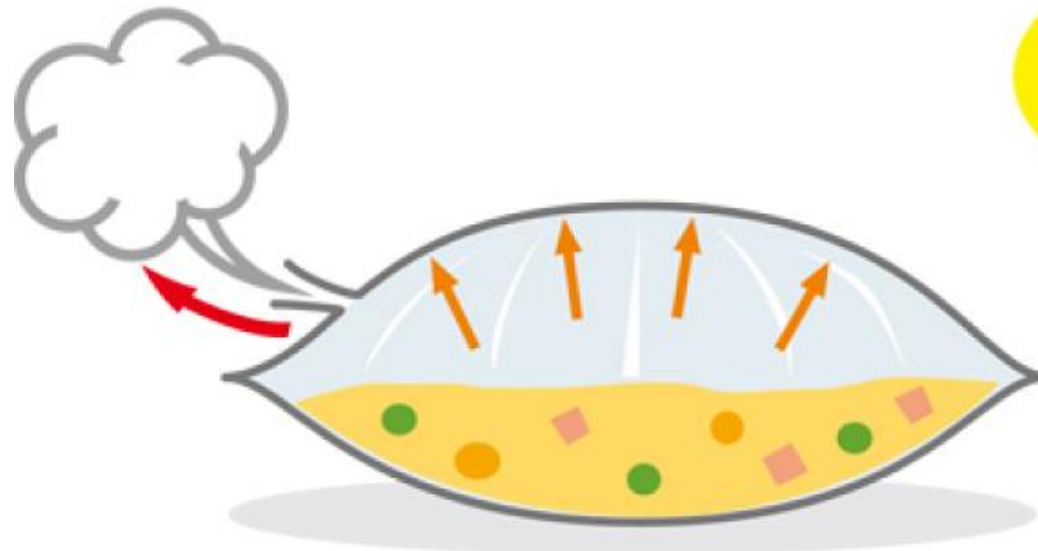
✓ Benefits of Microwaveable Self-Venting Retort Pouch

Consumer Benefits

- ✓ No opening needed
- ✓ Safe steam release
- ✓ Minimal mess
- ✓ Lightweight & resealable

Operational Benefits

- ✓ No need for metal trays or cans
- ✓ Lower transport/storage cost
- ✓ Faster preparation (1–2 min)
- ✓ Excellent for e-commerce



**PRESSURE
COOKING!**



**Act on insights!!
Grow through challenges!!!**

Sustainability

Common Goals for the future



100% Reduce, Reusable, Recyclable or Circularity plastic packaging by 2025-2030

Reusable or Reduce

Spouted
Pouch,
Thinner film
PCR film

Recyclable

Floatable film
100% recyclable PET +
Washable inks
Mono material Pouch









Circularity



Global trend for sustainability packaging

Bold Commitment to Sustainability and Circular Economy of Global Brand Owners



	<ul style="list-style-type: none">Colgate’s 2025 Sustainability & Social Impact StrategyWith the Colgate brand in more homes than any other, we are presented with great opportunities and new challenges as we work to integrate sustainability into all aspects of our business and create positive social impact. We are determined to position ourselves for further growth as we act on our 2025 Sustainability & Social Impact Strategy, based on our three Key Ambitions:
	<ul style="list-style-type: none">100% of plastic packaging to be reusable or recyclable by 2023Reduce virgin plastic by 50% by 2030
	<ul style="list-style-type: none">100% of packaging is recyclable or reusable by 2025Reduce the use of virgin plastic by one third by 2025
	<ul style="list-style-type: none">100% of plastic packaging to be recyclable by 202550% recycled material in packaging by 2030Collect and recycle a bottle or can for each one sold by 2030
	<ul style="list-style-type: none">100% of plastic packaging to be reusable, recyclable, or compostable by 202525% Post-consumer recycled content in all plastic packaging by 2025Reduce virgin plastic by 50% by 2025
	<ul style="list-style-type: none">100% of plastic packaging to be reusable, recyclable, or compostable by 202540% Post-consumer recycled content in all plastic packaging by 2025
	<ul style="list-style-type: none">100% of plastic packaging to be reusable, recyclable, or compostable by 202515% Post-consumer recycled content in plastic packaging in 2025
	<ul style="list-style-type: none">100% of plastic packaging to be reusable, recyclable, or compostable by 202530% Post-consumer recycled content in plastic packaging by 2025Reduce virgin plastic by 50% by 2025

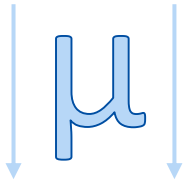


Sustainability

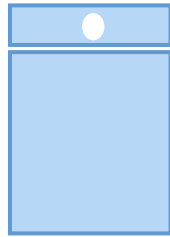
Solutions examples



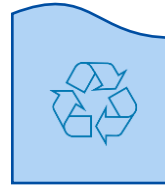
Integrated Solutions
in Decorative packaging



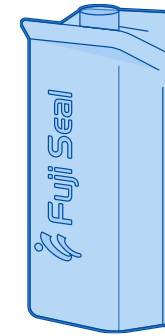
Material
Reduction



Mono-material
pouch



PCR-material



Fuji Pouch

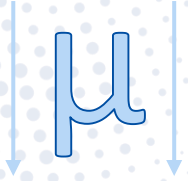


Spouted Pouch

Plan into Concept of Reduce, Design to Recycle and Circularity

Sustainable Solutions

Solution examples



Material Reduction

- **Thinner films:** Use high-performance materials that allow for a reduction in thickness without sacrificing strength or barrier properties.
- **Lightweighting : Minimize packaging size:** Reducing the size of packaging to fit the product more efficiently can lead to less material use.
- **Barrier improvement:** Incorporate high-barrier materials that provide the same protection but require less material overall. For example, adding nanotechnology or vapor-deposition coatings that enhance protection while reducing the overall packaging thickness.
- **Reduced layers:** If your packaging uses multiple layers, evaluate if they can be reduced or if fewer layers can provide similar performance



Integrated Solutions
in Decorative packaging

Sustainable and
profitable
growth in the
packaging industry

Flexible Over Rigid

Lighter Greener Smarter Future Ready!

Flexible packaging uses up to 60% less plastic than rigid containers like HDPE or PET bottles. It's lighter, takes up less space, reduces transport emissions, and supports modern, minimalist lifestyles. Switching to flexible means less plastic waste, lower carbon footprint and a smarter step toward sustainability without compromising product protection and convenience.

8.1 Billion People
World Population

114 MTons /Year
Plastic Packaging
PET bottle 500ml
HDPE bottle 1.5L

110.75 MTons/year
PET Bottles (500ml)
PET (Rigid) = 110.75M tons

3.94 MTons/year
HDPE Bottles (1.5L)
HDPE (Rigid) = 3.94M tons

60% Savings
66.45M tons
Flexible Pouch = 44.3M tons

67% Savings
2.63M tons
Flexible Pouch = 1.31M tons

Global Switch **69** Million Tons
Year Saved



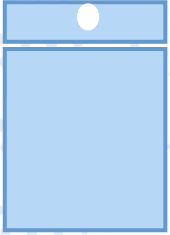
Switch to flexible
Cut weight Cut waste Save the planet
Up to 70% Material reduction
Easier transport → Lower CO₂
Supports Circular packaging systems

Flexible over rigid:

Transition from rigid to flexible packaging where possible. Flexible packaging generally uses less material compared to rigid alternatives.

Sustainable Solutions

Solution examples



**Mono-material
pouch**

100% Recyclable pre-made pouch and reel-feed

- **Simplified recycling process**
Monomaterials eliminate the need for complex sorting or separation of different layers of materials.
- **Compatibility with existing recycling streams:**
Monomaterial packaging Often go directly into existing recycling streams (e.g., PE or PP recycling).
- **Reduction in Waste**
Less waste during disposal and less contamination
- **Regulatory Compliance and Consumer Demand**
- **Meeting sustainability goals**



**Integrated Solutions
in Decorative packaging**

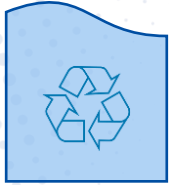


Sustainable Solutions

Solution examples



Integrated Solutions
in Decorative packaging



PCR-material

- **Reduction in Virgin Material Usage**
- **Closing the loop of Circular economy:**
- **Waste diversion from landfills**
- **Lower Greenhouse Gas Emissions**
- **Consumer Demand and Brand Perception**
- **Regulatory Compliance**
- **Meeting sustainability goals:**



Up to 30% PCR in PET material

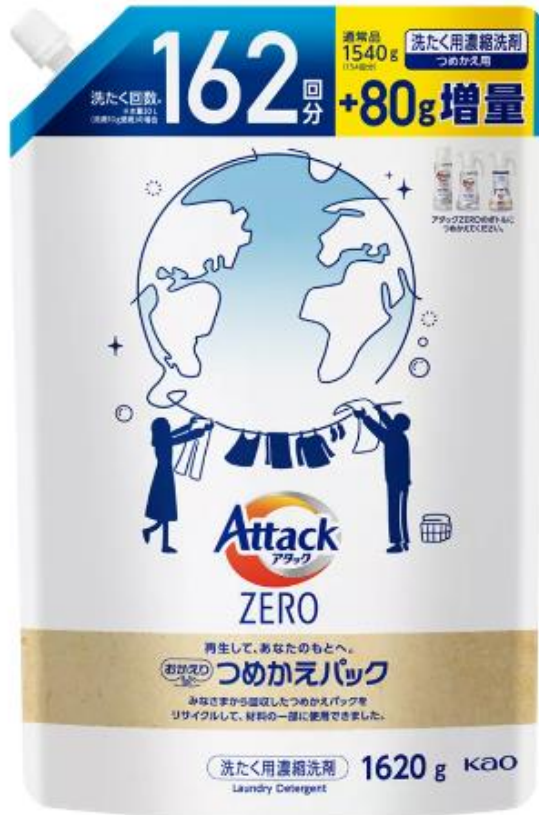
Sustainable Solutions

Solution examples

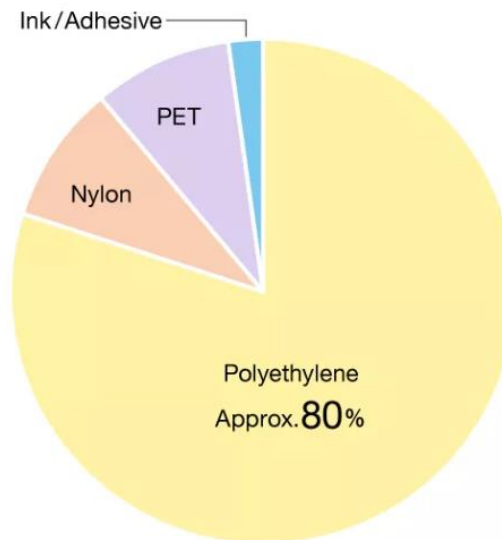


Integrated Solutions
in Decorative packaging

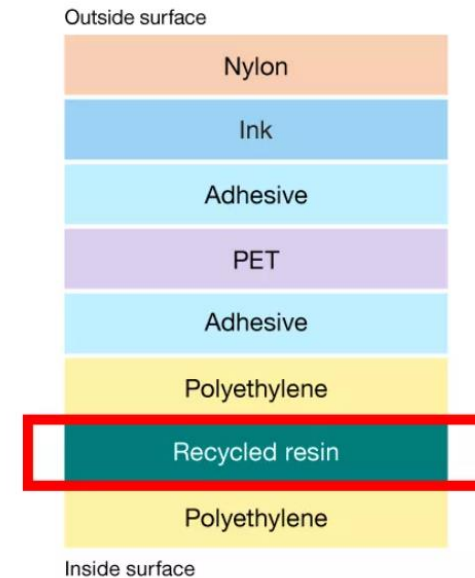
Kao and Fuji Develops Practicable Technology for **Film-to-Film** Recycling of Used Refill Packs



Constituent Materials of Used Refill Packs



Recycled Pack Structure
(Visualization)



There is growing demand for **monomaterial** pouches, but technical challenges and higher costs are delaying widespread adoption.

In response, aimed at achieving “**material circularity**” and reducing post-consumer waste.

* PCR pouch to be NEW pouch again

* 10% of recycled material is used

Sustainable Solutions

Solutions examples

- Provide environmentally friendly products (i.e., flexible Fuji Pouch[®]) to the bottle product market.
70% less plastic than standard pump-type bottles
- The new product is available in a variety of capacities and sizes.
Conventional type: only 340mL ⇒ Now: Various sizes are available



Flexible over rigid



Car care products 300ml



Cream toothpaste 115g



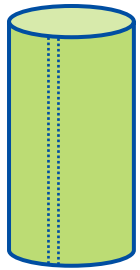
Sunscreen 120g

Sustainability

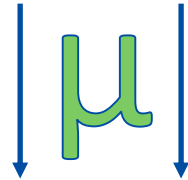
Solutions examples



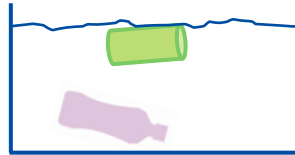
Integrated Solutions
in Decorative packaging



(In-line)
perforation



Thinner
material



Floatable
shrink sleeve



Recyclable
shrink sleeve



PCR-based
labels

Plan into Concept of Reduce, Design to Recycle and Circularity

Sustainable Solutions Perforation

Solutions examples



Integrated Solutions
in Decorative packaging

Tailored **length perforation** provides the option to separate the sleeve from the bottle prior to the recycling process (either by the consumer, or mechanically during compaction)

- Smooth separation of the sleeve by the consumer
- Optimize recyclability of the packaging
- Support the bottle-to-bottle loop



Shrink Sleeve Label

Product Available:-

Any product can apply

We Create New Value Through Packaging

Sustainable Solutions Reduce

Solutions examples



Integrated Solutions
in Decorative packaging



- **Thickness:**
 - Reducing plastic usage by downgauging (less than 35 μm)
 - Up to 50% material reduction without impacting your performance level
- **Size**
 - Up to 75% material reduction while keeping shelf impact
- **Reduced waste and carbon footprint**
- **Eco Friendly Packing & Transportation**
 - Bundle pack, longer roll
 - Less shipping and storage costs
- **Energy & Cost saving**
 - Energy Saving Steam Tunnel



Shrink Sleeve Label

Product Available:-

Mono PET: 40, 35 μm

Recyclable PET (PET film with washable ink): 40, 35 μm

Hybrid PET: 40, 35 μm

We Create New Value Through Packaging

Sustainable Solutions Reuse

Solutions examples

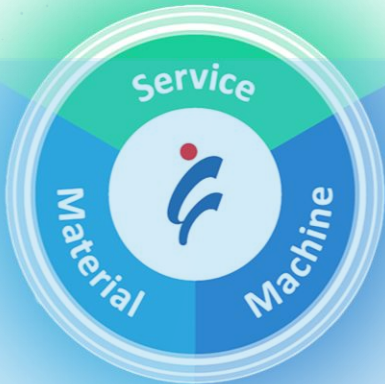
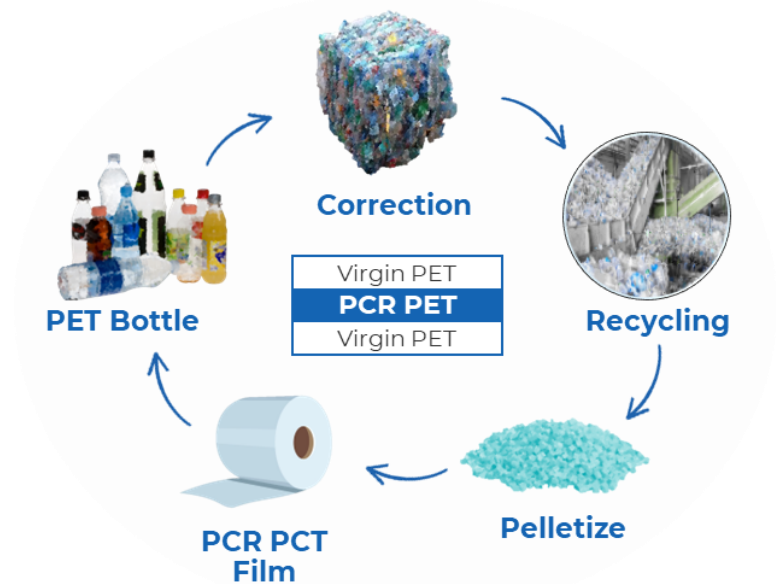


Integrated Solutions
in Decorative packaging

Decoration made from rPET

Up to 30% PCR

- Reduce usage of fossil sources
- Reduce virgin material to the field
- Reduce 20% of CO₂ Emission



Shrink Sleeve Label

Product Available:-

rPET: 35 µm

We Create New Value Through Packaging

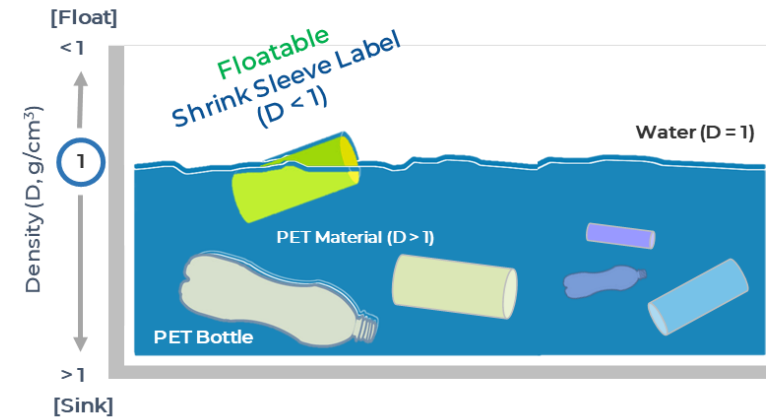
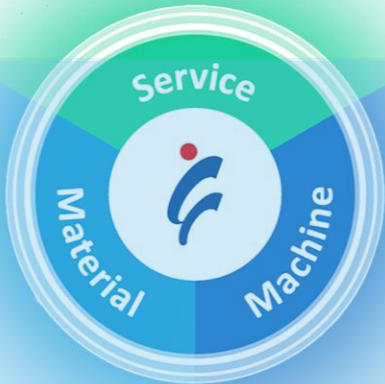
Sustainable Solutions Floatable Film

Solutions examples



Integrated Solutions
in Decorative packaging

- Low density material with density less than 1 g/cm^3
- Enable easy PET bottle recycling
- Provide significant reduction in the weight of packaging waste
- Easily separated using the float tank separation method



Shrink Sleeve Label

Product Available:-

Floatable: 50 μm

We Create New Value Through Packaging

Sustainable Solutions Recyclable Film

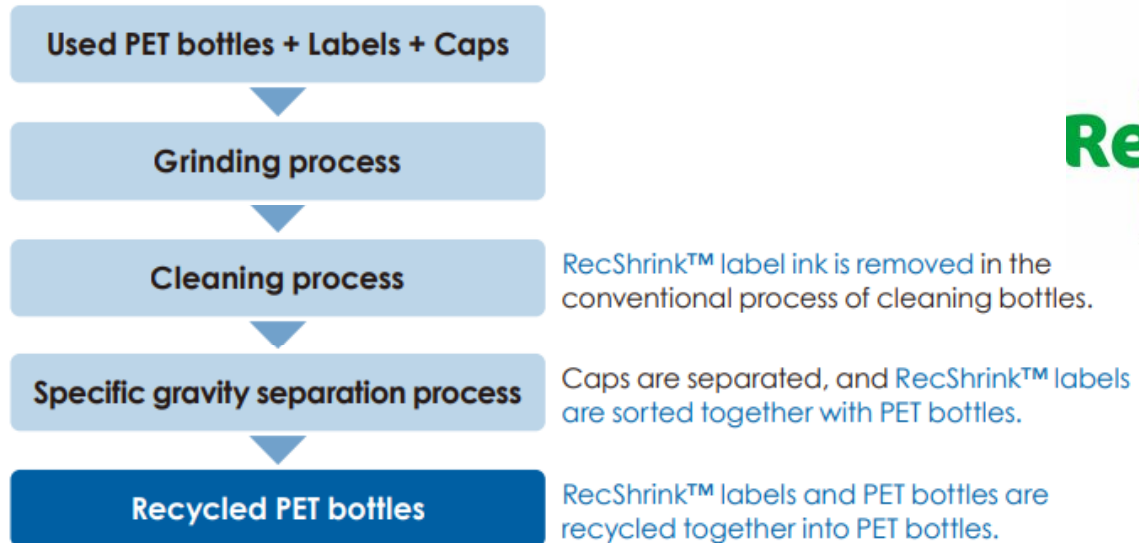
Solutions examples



Integrated Solutions
in Decorative packaging



RecShrink™ Recycling Scheme (Certified by APR)



Shrink Sleeve Label

Product Available:-

Recyclable PET (PET film with washable ink): 40, 35 µm

We Create New Value Through Packaging

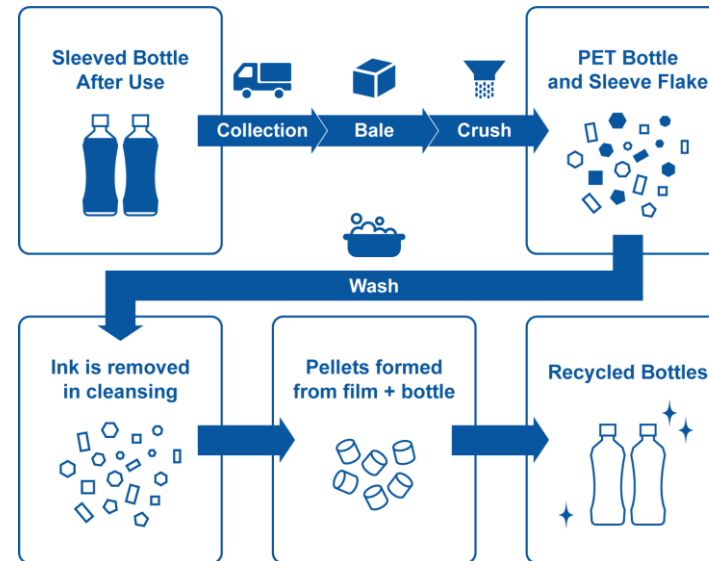
Sustainable Solutions Recyclable Film

Solutions examples



Integrated Solutions
in Decorative packaging

RecShrink™ Recycling Scheme (Certified by APR)



Association of Plastic Recyclers
1776 K Street, NW
Washington DC 20006
www.plasticsrecycling.org

September 13, 2021

Ms. Amonrat Deekajorndej
Fuji Seal Packaging (Thailand) Co., Ltd.
475 Sri Ayuthaya Road, Thanon Phayathai Sub-District,
Ratchathewi District, Bangkok 10400 Thailand

Dear Ms. Deekajorndej:

APR, the Association of Plastic Recyclers, is pleased to recognize Fuji Seal Packaging (Thailand)'s RecShrinkTH™ crystallizable PET copolyester shrink labels with washable ink systems for PET bottles as meeting or exceeding APR's PET-CG-02, Critical Guidance Protocol for Clear PET Articles with Labels and Closures, most strict requirements and hereby so states. This APR recognition is based on the technical recyclability of the urethane-based (FSPTWAS-01) and acrylic-based (FSPTWAS-02) washable inks for NPG-based, crystallizable PET copolyester, shrink labels complying with APR Critical Guidance for PET bottles.

A Review Committee, appointed per the APR Recognition Operating Procedures, reviewed your July 6, 2021 data submission and concluded the data were correctly obtained by a qualified laboratory and were completely presented to show the crystallizable label with washable inks submitted meet or exceed all critical guidance.

The Critical Guidance Protocol for Clear PET Articles with Labels and Closures is the product of multi-industry consensus of key issues related to the recycling of postconsumer PET bottles. The Protocol directs innovators to conduct specific testing per established testing procedures and then provides the innovator with guidance to interpret the results. The APR recognition is based on the innovation meeting or exceeding the most challenging test conditions and strictest guidance criteria.

APR thanks Fuji Seal Packaging (Thailand) for its cooperation in using this important protocol. The protocol is intended to improve the quality of recycled bottles by helping innovators to make informed decisions about the consequences of PET bottle innovations. The impact of this protocol is world-wide.

Our recognition applies only to the label and ink systems tested and not necessarily to shelf-ready bottles as those bottles would need to be tested themselves to demonstrate the system of resin, additives, and closure conformed to the APR Critical Guidance Document. Meeting the Critical Guidance Document guidelines is a truly significant step in demonstrating overall recyclability of your label product.

Yours truly,

APR President and CEO

The Voice of Plastics Recycling™



Shrink Sleeve Label

Product Available:-

Recyclable PET (PET film with washable ink): 40, 35 µm

We Create New Value Through Packaging

Sustainable Solutions Label to Label

Solutions examples



Integrated Solutions
in Decorative packaging

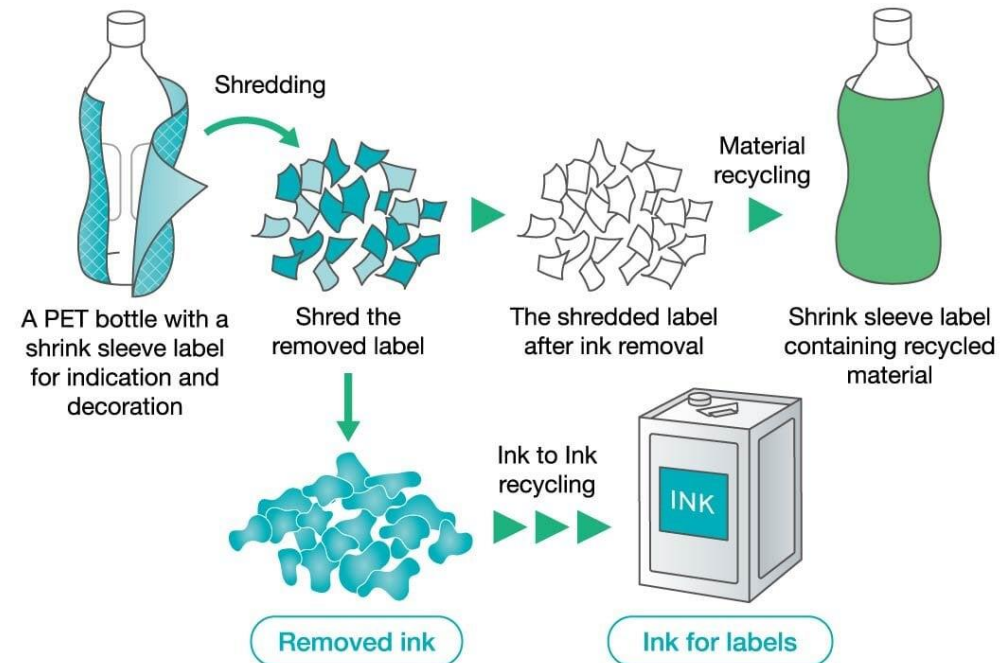
The Fuji Seal Group is working to build a recycling-based society to contribute to a sustainable society and achieve long-term corporate growth. We are working to implement recycling not only in design, but also in practical recycling processes so that labels and packages that have been consumed can be reborn as resources.

“Label-to-Label” is a technology that contributes to resource recycling by peeling off printed labels regenerating them into new labels.



Shrink Sleeve Label

Flow of Label to Label recycling



We Create New Value Through Packaging

Sustainable Solutions Label to Label

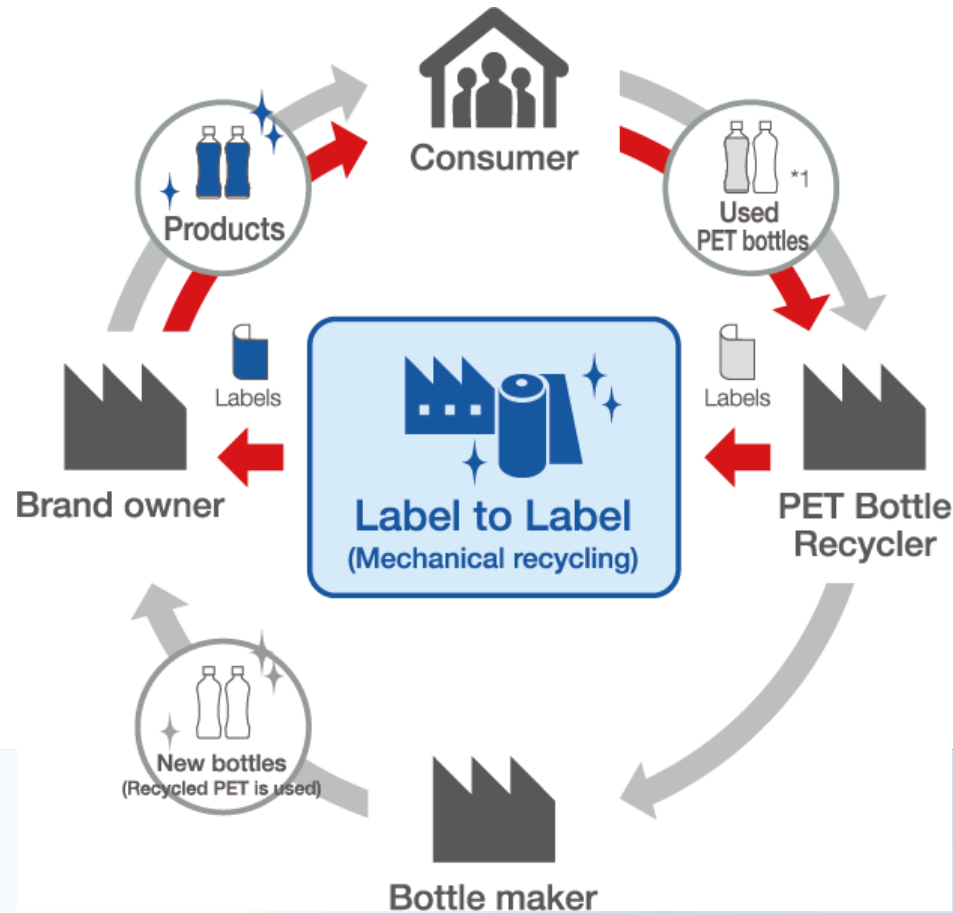
Solutions examples



Integrated Solutions
in Decorative packaging



Shrink Sleeve Label



“Label-to-Label” Mark Usage Guidelines



- Pre-consumer materials from shrink sleeve labels and/or postconsumer materials from shrink sleeve labels as recovered materials
- A shrink sleeve label made using recycled shrink sleeve material, which is produced by removing printed designs from collected labels and processing them into recycled pellets

We Create New Value Through Packaging

Sustainable Solutions Label to Label

Solutions examples



Integrated Solutions
in Decorative packaging

Label to Label mark



June 2024



2024



Oct 2023



Oct-Dec 2023



Shrink Sleeve Label

We Create New Value Through Packaging

"Evolving Food Packaging in Japan: From Trends to Technology"

Summary & Implications – Japan's Packaging Evolution

1. Packaging Has Shifted: From Protection → Performance → Experience

Protection (Pre-2010s):

Focus on preserving food integrity, preventing contamination, and maximizing shelf life (e.g., cans, rigid plastic).

Performance (2010s–Early 2020s):

Emphasis on lightweighting, barrier properties, and functional formats like retort pouches and multilayer films.

Experience (Now – 2024):

Packaging now enhances user experience: easy-open, resealable, on-the-go, hygienic, and eco-conscious.

It's a **consumer engagement tool** — not just a container.



Act on insights!!

Grow through challenges!!!

"Evolving Food Packaging in Japan: From Trends to Technology"

Summary & Implications – Japan's Packaging Evolution

2. Japan as a Global Trend Leader

- Leads in **compact**, **minimalist**, and **multi-functional** formats
- Embraces **space-saving**, **portion-controlled**, and **aesthetically clean** design ideal for urban lifestyles
- Early adopter of **retort pouches**, **spouted pouches**, and **shrink sleeve labels** for both visual impact and practical use



Act on insights!!

Grow through challenges!!!

"Evolving Food Packaging in Japan: From Trends to Technology"

Summary & Implications – Japan's Packaging Evolution

3. Emerging Opportunities

- **Spouted Pouches:**

Expanding across sauces, beverages, baby food, and even oils combining convenience and material efficiency

- **Retort-Ready Flexible Packaging:**

Growth in heat-and-eat meals, pet food, and soups — shelf-stable and lightweight formats becoming the norm

- **Smart Fitments & Functional Closures:**

Dual-function caps (pour + squeeze), child-safe locks, or venting features for microwaveable packs

- **Mono-material Innovation:**

Demand for recyclable and regulation-compliant solutions is driving brands toward simplified, sustainable structures



Act on insights!!

Grow through challenges!!!

thank you!



Act on insights!!

Grow through challenges!!!