Sharing Sustainable Business Best Practices, Success Stories Among APEC Economies: Health and Wellness and Other Products and Services - Biodegradable Packaging for Environment PLC

Submitted by: Biodegradable Packaging for Environment PLC
Company Profile

Biodegradable Packaging for Environment PLC, Thailand
New York City Bans Single-Use Styrofoam Products

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Ban will go into effect July 1.

Former New York City Mayor Michael Bloomberg left office in 2013, but his plan to ban styrofoam is finally coming to fruition.

Mayor Bill de Blasio’s administration announced Thursday that stores, food service establishments and manufacturers won’t be able to possess, sell or offer single-use styrofoam containers or cups — even “packing peanuts” — beginning July 1. The reason is purely environmental, as Expanded Polystyrene Foam cannot be recycled.

“These products cause real environmental harm and have no place in New York City. We have better options, better alternatives, and if more cities across the country follow our lead and institute similar bans, those alternatives will soon become more plentiful and will cost less,” said de Blasio. “By removing nearly 30,000 tons of expanded polystyrene waste from our landfills, streets and waterways, today’s announcement is a major step towards our goal of a greener, greater New York City.”
Degradation period in nature

<table>
<thead>
<tr>
<th>Product</th>
<th>Degradation Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>2-5 Months</td>
</tr>
<tr>
<td>Orange Peel</td>
<td>5 Months</td>
</tr>
<tr>
<td>Cigarette Butts</td>
<td>12 Years</td>
</tr>
<tr>
<td>Can</td>
<td>80-100 Years</td>
</tr>
<tr>
<td>Plastic</td>
<td>450 Years</td>
</tr>
<tr>
<td>Foam</td>
<td>Does not Decompose</td>
</tr>
</tbody>
</table>
How much foam and plastic do we use today?

From the statistical data, it was found that

Thai people throw away plastic and foam waste

Average 2.3 pieces per person per day

If more than 60 million Thai people to separate plastic and foam waste into proportions and put them together

In one year, plastic bags and styrofoam boxes will be collected.

Total about......

\[2.3 \times 60,000,000 \times 365 = 50,370,000,000\] bags or boxes

(Five thousand, three hundred and seventy million)
Amount of Waste

From foam and plastic in Thailand per day If they put them together, they would be as tall as a 10-floors building.
In a year, we build a 10-floors building from waste = 365 buildings.
Microplastic

Nanoplastic
PLANET OR PLASTIC?

18 billion pounds of plastic ends up in the ocean each year. And that’s just the tip of the iceberg.
NO
Single Use Plastic
“There has never been a more urgent need to revive damaged ecosystems than now”

“Ecosystems support all life on Earth. The healthier our ecosystems are, the healthier the planet - and its people”
Because we believe we have only "One Life, One Planet", we try our best to preserve it as best as we can. Gracz is a compostable tableware and packaging products for lifestyles of health and sustainability.
Solution to **restore ecosystem**

Product Circular under brand “**Gracz**”

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**FROM NATURE TO NATURE**

- Creates value from agriculture waste.
- Reduces the burden on landfill sites from the first until the last process.
- Does not cause any air pollution (PM 2.5) nor release any harmful chemicals to any lives.
From *Waste*

To *Value*

100% made from Natural Plant Fiber

Thailand is agriculture base area
3 Main benefits

- **Health**: Non toxic and non carcinogen
- **Environment**: Compostable within 45 days
- **Functions**: Microwavable, Ovenable, and Freezable

Add **Value** to waste, add **Health** and **Well-being** to people
Hot & Cold
Freezable
Microwavable
Environmental friendly

- Gracz made from 100% natural plant fiber (non-wood fiber)
- Compostable & Fertilizable within 45 days without any chemical left to the environment
Save the World
Solution to beat plastic pollution

Compostable Packaging made of 100% natural plant fiber

Health
• Non toxic and non carcinogen

Environment
• Natural plant fiber
• No plastic coating
• Compostable and fertilizable within 45 days

Functions
• Hot water (95-100 Celsius)
• Hot oil (120 Celsius)
• Microwavable (1300 watt for 5 minutes)
• Ovenable (200 Celsius for 30 minutes)
• Freezable (minus 20 Celsius for 24 hours)
Variety of Products
Food Packaging
Variety of Products
Food Packaging – hot and cold use
Variety of Products
Food Packaging - Ovenable
Variety of Products
Food Packaging
Variety of Products

Food Packaging
Variety of Products
Food Packaging
Variety of Products
Beverage Packaging
Variety of Products
Frozen food - Ice-cream
Variety of Products
Frozen food – Ready Meal

Functions

• **Hot water** (95-100 Celsius)
• **Hot oil** (120 Celsius)
• **Microwavable** (1300 watt for 5 minutes)
• **Ovenable** (200 Celsius for 30 minutes)
• **Freezable** (minus 40 Celsius/chilled 18 Celsius for 18 months)
• **Product is topsealable**
Variety of Products
Non-food packaging: Medical Equipment

MK01  Gracz Med Biodegradable Kidney Tray 8 inches
      203.4x12x36 mm./400 ml.

MK02  Gracz Med Biodegradable Kidney Tray 10 inches
      255x124x43 mm./700 ml.

MT02  Gracz Med Biodegradable Medical Tray
      20.5x4.5x1.3 cm
Variety of Products
Non-food packaging : Medical Equipment
Variety of Products
Non-food packaging: Agriculture
Our Vision
All lives live healthier in a safe natural environment

Our Mission
BPE creates nature to nature innovation by maximizing use of natural materials for healthier living while ensuring complete integration back to nature.
BPE offers innovative bio-renewable solutions for quality of life and safe environment.

Our Core Value
- Health
- Environment
- Team Spirit
- Innovation
- Accountable
- Possibility
Our factory
Certificates
One Life, One Planet
Thank you

“All lives live healthier in a safe natural environment”

Dr. Weerachat Kittirattanapaiboon)