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**PREVENTED  
OCEAN  
PLASTIC**

SPECTRA'S **STANDARD** RECYCLED SOLUTION



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# WHAT IS PREVENTED OCEAN PLASTIC?

Prevented Ocean Plastic (POP) is recycled plastic collected from coastal areas at risk from ocean plastic pollution. According to academic definitions, this ocean-bound plastic is at risk of ending up in the ocean if not collected for recycling.

The **POP programme** aligns plastic recycling standards across coastlines at risk from ocean plastic pollution. The scheme offers an ongoing supply of high-quality recycled plastic at industry scale whilst supporting local communities at the forefront of ocean plastic waste.

The initiative allows brand owners and customers to track the materials in their products back to specific coastal communities in at-risk areas. These areas include Southeast Asia, South America, the Galapagos Islands, the Mediterranean and Central America & Caribbean.

The **POP programme**, a product line supplied by **Bantam Materials**, has prevented over 10 billion bottles from entering the ocean since 2005. Bantam is a for-profit business that pays for

collecting and recycling over \$100,000 a day of plastic that is prevented from entering oceans and waterways.

The **POP programme** is the most extensive program of its kind, preventing over 1,000 tonnes of plastic from entering the ocean every month. Supplying major retailers and building partnerships across the supply chain, the scheme provides recycled plastic collected from coastal areas at risk from ocean plastic pollution.

**Bantam's** programme explicitly identifies areas that do not benefit from established recycling infrastructures and provides a global recycling initiative to help tens of thousands worldwide earn a reliable income, clean their coastlines, and prevent ocean plastic.



## WHAT ARE THE AIMS OF THE PROGRAMME?

The programme's goals are to increase demand for recycled plastic instead of new plastic, create income opportunities in coastal communities and prevent ocean plastic at scale.

# A SUSTAINABLE SOLUTION THAT'S PROACTIVE RATHER THAN REACTIVE

There is a clear distinction between ocean plastic recovery measures and prevented ocean plastic endeavours.



## PROACTIVE PREVENTION

**POP IS made from plastic collected from coastal areas at risk of ocean plastic pollution.**

Ocean-bound plastics originate from proactive preventative measures that retrieve materials before they enter the water and impact the environment.



## REACTIVE RECOVERY

**POP is NOT made from plastic bottles recovered from the ocean.**

Ocean-recovered plastics have already impacted the environment resulting in reactive clean-up efforts, not recycling efforts.

The phrase 'ocean plastic' is hugely misleading because there are many different terms that don't always mean the same thing. For clarity, ocean plastic falls into two clear definitions, which are:

### OCEAN BOUND PLASTIC

The academic\* definition of Ocean-Bound plastic is:

- It is found within 50km (30 miles) of an ocean coastline or major waterway that feeds into the ocean.
- The country or region lacks waste management infrastructure and collection incentives.
- The infrastructure is being overwhelmed by population growth or tourism.
- There is a significant risk to wildlife if plastic contaminates their ecosystem.

### OCEAN-RECOVERED PLASTIC

Those plastics present a number of challenges for recycling because:

- Once plastic enters the ocean, it becomes degraded by sea salt and UV light
- Exposure can render the material brittle, fragmented and discoloured, making it largely unusable for recycling.
- Most plastic retrieved from the ocean will not make it to the recycling plant but is stored in warehouses or incinerated.

\*Jambeck, J.R., Andrady, A., Ceyer, R., Narayan, R., Perryman, M., Siegler, T., Wilcox, C., Lavender Law, K., (2015). Plastic waste inputs from land into the ocean, *Science*, 347, p. 768-m.

# HOW DOES THE PROGRAMME WORK?

The POP programme typically follows a 4 step approach to tackle ocean plastic pollution.

# 1

## COLLECTION

Local collectors (or First-Collectors as referred to in the programme) pick up discarded plastic bottles from areas at risk of ocean plastic pollution and take them to local collection centres, after which they receive payment for their labour.



# 2

## SORTATION

Upon arrival at the collection centre, the plastic bottles are carefully sorted, pressed into bales, and transported to plastic recycling factories.



# 3

## PROCESSING

At the recycling factory, the plastic bales are raw flakes. The flakes are then processed at another location into pellets ready for manufacturers such as Spectra to make into new packaging products.



# 4

## TRACEABILITY

The resulting materials have full end-to-end traceability of the entire collection and recycling process - from origin beaches to the final production ready material (flake or pellet).



# THE ENVIRONMENTAL BENEFITS?

Unlike reactive recovery measures such as Ocean Recovered Plastic, POP products result from preventive measures to stop any harm to marine life and ecosystems in advance.

POP stops ocean plastic pollution at scale, providing quality-grade robust recycled plastic supplies supporting local communities. POP also allow brands complete traceability of their recycled materials in their products - back to specific at-risk coastal communities.

Choosing recycled plastic over virgin plastic mitigates greenhouse gases, reducing the depletable resources required to produce new materials. POP schemes actively help recover valuable raw materials and return them to new products.

Evidence shows that

**80% OF OCEAN PLASTIC**

comes from land-based sources in developing coastal communities, and preventive schemes such as POP help halt such issues at the source.

The programme is proven to divert over

**1000 TONNES OF PLASTIC**

from entering the ocean every month.



# THE SOCIETAL BENEFITS?

In addition to the environmental benefits, the POP programme also brings positive social change that improves public health, engages communities, creates economic opportunities, and promotes education and awareness

By preventing ocean plastic, the programme helps protect marine life and ecosystems from the harmful effects of plastic pollution, conserving biodiversity and ensuring the sustainability of marine resources, which benefit local communities that depend on the ocean for their livelihoods.

There are also improved public health benefits. Ocean plastic pollution can harm human health, contaminating seafood and water sources.

The programme engages local communities in collecting plastic waste and implementing recycling initiatives in regions that do not enjoy the same waste management infrastructures as those in more developed countries. It also promotes a sense of ownership and pride in environmental stewardship, enabling community cohesion and empowerment.

The economic opportunities also help establish recycling facilities and initiatives that generate income for local communities. This can include waste collection and sorting, plastic processing, and manufacturing products from recycled materials to provide jobs and stimulate local economies.

Unlike informal collection systems that historically don't offer the same levels of fairness, the POP programme protects bottle collectors ensuring fair and transparent pay rates. It also provides employment development, allowing collectors to advance into other roles such as sorting operatives, supervisory, health and safety or management positions.

The programme's efforts raise awareness about the detrimental impacts of ocean plastic pollution and promote education on waste management and recycling, leading to long-term behavioural changes in individuals and communities.



# HOW ETHICAL IS THE PROGRAMME?

In 2021, Bantam Materials, producers of POP, became the first recycled plastic supplier to join the Ethical Trading Initiative (ETI).

The ETI is a leading alliance of companies, trade unions and non-profit organisations that promotes respect for workers' rights around the globe.

Ethical trade practices enable retailers, brands, and their suppliers to take responsibility for improving the working conditions of the people who make the products they sell. Most of these workers are employed globally by supplier companies, with many based in developing countries where laws designed to protect workers' rights are inadequate or not enforced.

Companies committed to ethical trade conventions adopt a code of labour practice that they expect all their suppliers to work towards. These codes address wages, work hours, health and safety, and workers' right to join free trade unions.

## CHILD LABOUR

In clause 4 of its base code, the ETI states that members should not use child labour or that there should not be any new recruitment of child labour. The ETI also advises businesses to ensure employers across the supply chain observe any requirements of the law concerning adolescent workers under 18. Neither should under 18s be required to work at night or extended hours (more than eight hours a day or five days a week).



**Ethical  
Trading  
Initiative**

For workers' rights.  
For better business.

## SCAN THE CODE TO VIEW THE ETI BASE CODE

The Base Code underpins all the work carried out by the ETI. It was negotiated and agreed by the founding trade union, NGO and corporate members of ETI and contains nine clauses which reflect the most relevant conventions of the International Labour Organisation with respect to labour practices.





# WHY HAS SPECTRA MOVED TO POP?

Spectra has always championed using recycled materials and supports all efforts to minimise the environmental impact of plastic.

As a responsible plastic packaging manufacturer, we feel obligated to make sound environmental choices for our customers instead of leaving the onus on them. We acknowledge our place as part of a global community that takes greater responsibility to protect our planet.

Prevented ocean plastics can provide scalable solutions to reduce ocean plastic pollution whilst decreasing the need for new plastic, which generates more carbon emissions than recycled plastic. Furthermore, because the POP programme offers meticulous collection and sorting procedures, the quality of the product is superior to that of conventional kerbside collected materials.

Spectra believes community collection programmes, such as these, can support and incentivise developing communities on the frontline of plastic waste to generate reliable incomes that will sustain socio-economic growth for future generations.

## OUR COMMITMENT IS MAKING A DIFFERENCE

Since introducing Prevented Ocean Plastic into our recycled PET supply chain in September 2022, we have brought in over 535 tonnes of the material, which equates to nearly

**27 million  
PLASTIC BOTTLES\***

recovered from at-risk coastal regions that do not benefit from robust waste management infrastructures. \*Figures up to September 2023.

## OUR LONG-TERM COMMITMENT

### SEPTEMBER 2022

The introduction of Prevented Ocean Plastic into our recycled PET supply chain

### SEPTEMBER 2023

The introduction of Prevented Ocean Plastic into our recycled HDPE supply chain

### FUTURE PLANS

The introduction of Prevented Ocean Plastic into our recycled PP supply chain

# WHAT ARE THE CARBON EMISSION SAVINGS?

**84%**

The production of plastic accounts for 84% of the total carbon footprint of plastic

Dormer et al. (2013)

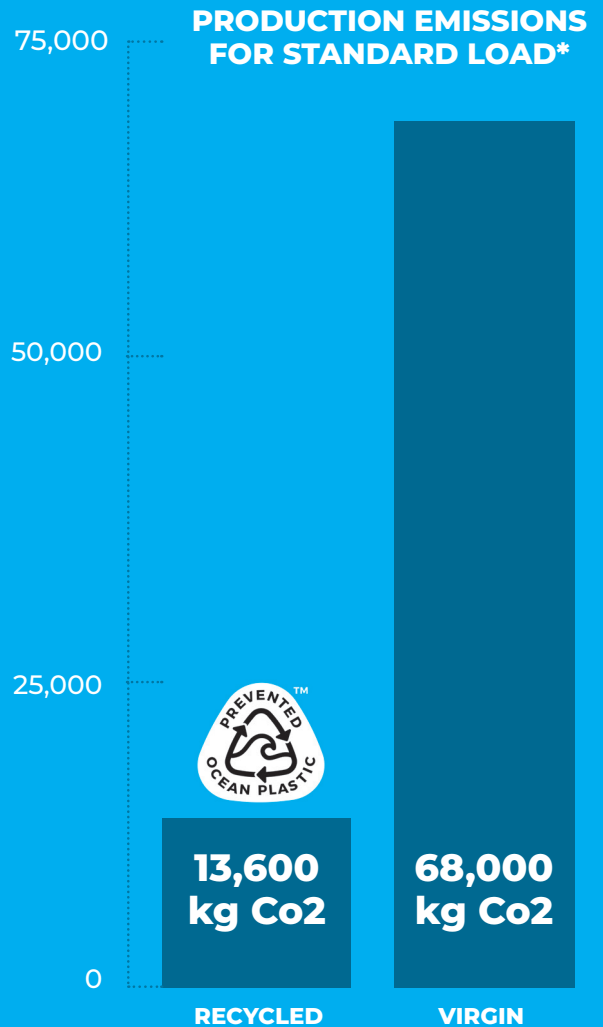
**5x LESS**

The production of recycled plastic releases 5x less carbon emissions than virgin plastic

Based on Alpla Group data (2017)

**50,000 kg CO<sub>2</sub>**

Is what can be saved with every standard load of **Prevented Ocean Plastic™**, compared to virgin plastic



Based on Alpla Group data (2017)  
\*POP Standard Load (Flake) = 20 tonnes

# WHAT ARE THE TRANSPORTATION IMPACTS?

Transport by sea emits up to 20x less emissions than by land

## Carbon Emissions from trucks coming from Europe into the UK

- Paris to Northampton: 790 kg
- Hamburg to Northampton: 1420 kg
- Milan to Northampton: 1920 kg

## Carbon Emissions from ships, coming from Mediterranean and outside Europe into UK

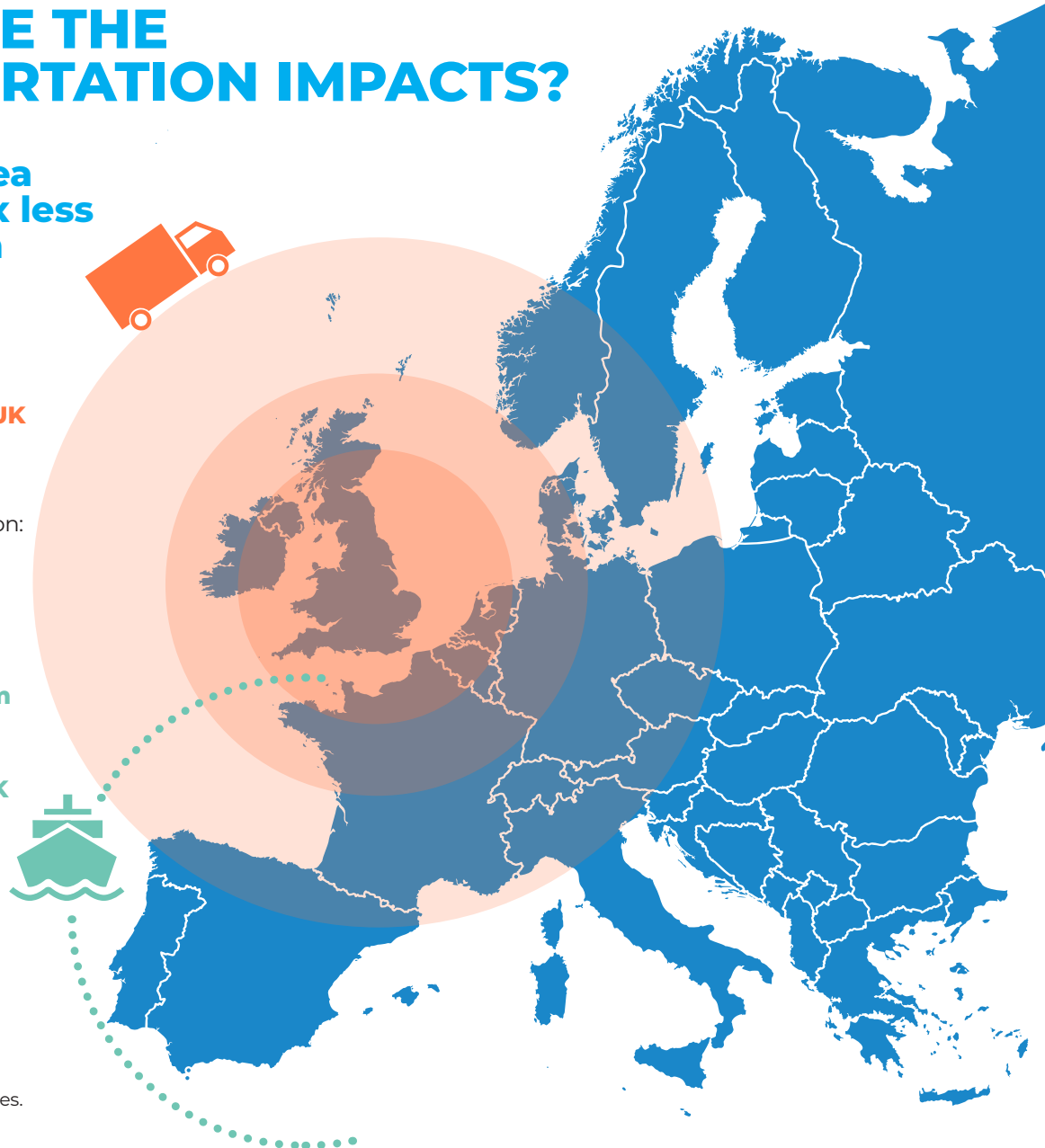
- Mediterranean to UK: 335 kg
- South America to UK: 700 kg
- Southeast Asia to UK: 945 kg

### Conversion rates

Average freight carried 20 tonnes.

Ship: 3 grams CO<sub>2</sub>/ton/km

Truck: 69.7 grams CO<sub>2</sub>/ton/km



# FREQUENTLY ASKED QUESTIONS

## Is Prevented Ocean Plastic collected from plastic already in the ocean?

Prevented Ocean Plastic is not plastic collected out of the ocean, which is likely to have been degraded by the sun and the salt, making it unusable for recycling.

Prevented Ocean Plastic is recycled plastic collected from at-risk coastal areas before it becomes ocean plastic pollution. According to academic definitions, this ocean-bound plastic would likely end up in the oceans if it was not collected for recycling.

## Are there Good Manufacturing Practices' that support the Prevented Ocean Plastics Programme?

Yes, the Prevented Ocean Plastic program is supplied by industry expert Bantam Materials, providing all required regulatory documentation and good manufacturing practices as required by the industry.



## **Prevented Ocean Plastic deals with the main challenges in the industry, such as:**

Prevented Ocean Plastic deals with the main challenges in the industry, such as:

### **1. The quality of the raw material**

Quality is based on fully traceable 99% PET bottle inputs, which are then processed via Good Manufacturing Practices and tested to meet the highest quality levels required for food packaging applications. Other applications include beverage and personal care, among others.

### **2. Production Practices**

Production adheres to Good Manufacturing Practices. Including, when necessary, decontamination technology and/or ABA structure as per European regulations.

### **3. Documentation**

Prevented Ocean Plastic provides a full suite of supporting documentation, including risk parameters of substances of very high concern.

## **Are food contact Migration tests available?**

Yes. Prevented Ocean plastic materials have passed industry-required migration tests.

## **Is Prevented Ocean Plastic compliant with EU Regulations?**

### **Regulation 2004 (EU) 1935/2004**

1. Prevented Ocean plastics are manufactured in compliance with Good Manufacturing Practices.
2. The Prevented Ocean Plastic Good Manufacturing Practices are based on the documentation provided by industry experts Bantam Materials, who referred

to external consultant Dr Damien Carson of Blue Frog Scientific and have passed numerous European manufacturing customer audits. These documents are freely available for year-over-year manufacturer BRC audits and comply with EU regulations such as 2023/2006, 282/2011 and 1935/2004.

3. Prevented Ocean Plastic is fully traceable and has third-party certification through the supply chain, including full regulatory documentation and highest quality migration testing.

## **Are Declarations of Compliance available for Prevented Ocean Plastics supply?**

Yes. Declaration of Compliance meeting the industry standard as reviewed by Dr Damien Carson from Blue Frog Scientific is available on request.

## **As per regulation 1935/2004 is traceability available at all stages of the supply chain?**

Yes, traceability is the strength of the Prevented Ocean Plastic Programme.

Recycled plastic traceability has been highlighted as a challenge for the industry in the guidance for the safety evaluation of recycled plastic.

We agree that traceability has been an ongoing need within the plastic recycling market. Based on this industry need, the Prevented Ocean Plastic programme has created a system of full traceability within the plastic supply chain, including third-party certification of this step-by-step process to provide a required innovation to the market.

The open supply chain and certification have been subject to numerous successful spot checks and industry audits.

### **Does Prevented Ocean Plastic documentation demonstrate compliance with EU regulations, including regulations for food packaging?**

Yes. The supplier of the Prevented Ocean Plastics program Bantam Materials, chair of Europe's main plastic recycling conference (ICIS 2017), is an industry level recycled raw material distributor, with extensive experience and co-operation with various aspects of quality, regulated, just-in-time distribution and supply of high-performing recycled plastic raw materials.

### **Does Prevented Ocean Plastic comply with Regulation (EU) No 10/2011?**

Recycled plastics shall be made from post-consumer bottles or trays.

Prevented Ocean Plastic works to a 99% standard of post-consumer bottle inclusion in its recycling.

### **Can bottles collected outside of the EU be used for food packing?**

Yes. As per all recycled flake, EU or non-EU, a super cleaning process or a functional barrier is required for food packaging.

### **Does Prevented Ocean Plastic comply with Regulation 282/2008?**

Prevented Ocean Plastic remains on equal footing to all other recycled flake supplies requiring a functional barrier or a super cleaned process.

Regarding food contact pellet, EFSA has authorised numerous processes outside the EU for direct

food contact. These processes would upgrade the flake into a food-safe rPET Pellet, which should be used in food packaging and perform to benefit the environment.

The quality of recycled plastic depends not on the country of origin but the quality of the collection, sortation, production and testing.

### **Does Prevented Ocean Plastic comply with Regulation 2023/2006 on good manufacturing practices as a prerequisite for other European regulations?**

Yes, process control and full traceability across the supply chain stages, including quality assurance and quality control apply. Numerous market factors have independently audited these systems and are freely open for review.

### **What is the quality of food packaging production using Prevented Ocean Plastic Supply?**

The Prevented Ocean Plastic program is honoured to partner with industry leader Groupe Guillin across many production sites. Groupe Guillin's proud history of over 40 years of serving the food packaging market enables the best quality supply to be provided to the market across many product categories.

The endorsement of Groupe Guillin confirms that the Prevented Ocean Plastic supply line meets the highest quality levels required within the food packaging market regarding practical operations, quality, and market-leading traceability.

### **What is the quality of plastic collected from natural environments?**

The Prevented Ocean Plastic Program demonstrates that fully traceable, certified, compliant, and high-quality recycled PET plastic can be available to industry requirements.

Using 99% PET bales in all production and aligning recycling standards across at-risk coastlines for ocean plastic, the highest quality products can be achieved, and ocean plastic prevention is possible at scale.

*It is incredibly important that all factors within the plastic supply chain recognise that plastic is reaching our natural environment and the ocean. The Prevented Ocean Plastic Program allows you to draw materials away from at risk environments and thereby offer a better and more sustainable plastic choice to your customers.*



Spectra has rapidly established itself as a leading independent supplier for innovative, high-quality rigid plastic packaging.

Our energetic and flexible approach has ensured lasting relationships with many leading high street brands within the toiletries, cosmetics and personal care sectors.

We can offer an extensive range of standard containers to choose from and an in-house custom tooling facility to provide bespoke designs. Additionally, we can provide environmentally responsible solutions in PCR (Post-Consumer Recycled) and Biopolymer.

Brands need not look further for innovative decoration either, Spectra boasts a dedicated in-house decoration department, offering an array of print finishes.

We also make closures for customers seeking a complete packaging solution, with everything produced at our purpose-built manufacturing plant in Suffolk.

Our in-house services include:

- An extensive range of standard designs
- Custom Moulding Solutions
- Environmentally Responsible Packaging
- Decoration and Finishing
- Colour Matching



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