

Born from Airbag REAMIDE

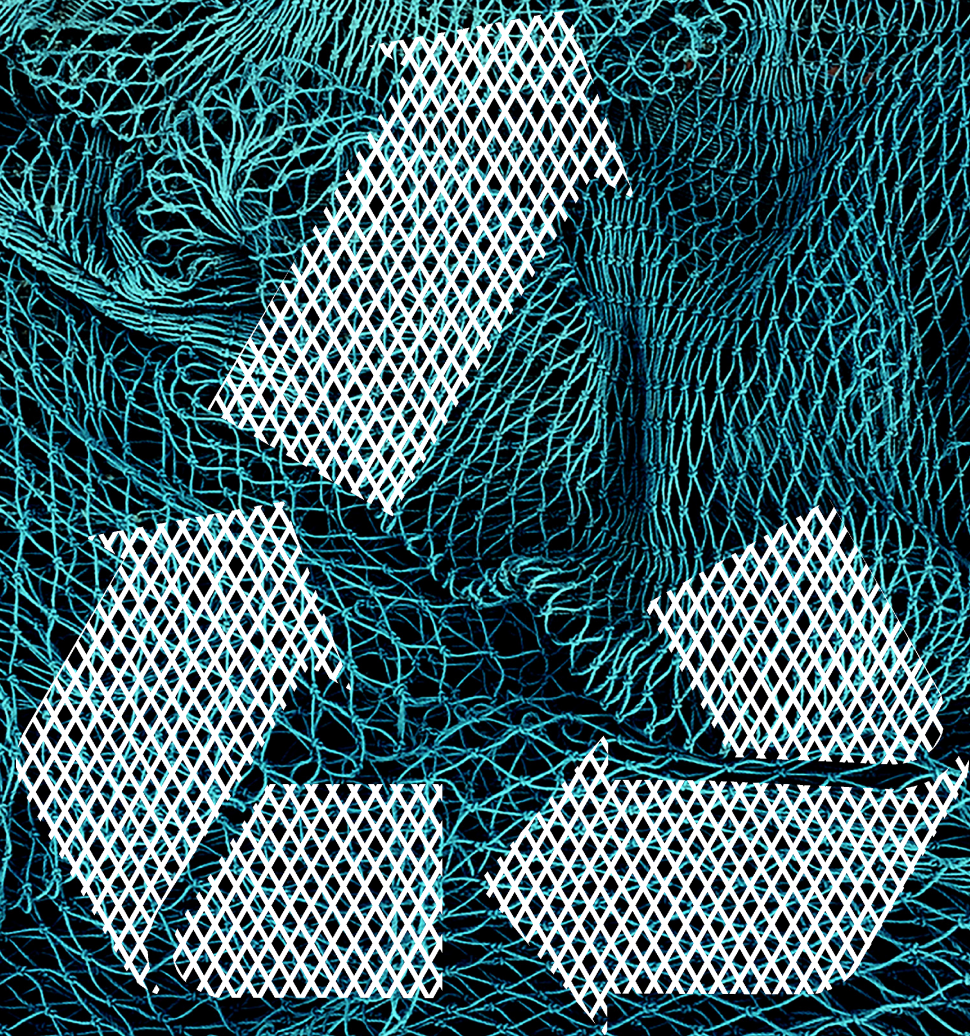


We turn discarded
airbags into treasure.

“日本を資源大国にしよう”
REFINVERSE Group

Refinverse, Inc.
Akira Ochi, President & CEO
Address: 11F X-PRESS Yurakucho, 2-2-1 Yurakucho, Chiyoda-ku, Tokyo, 100-0006

Made from Fishnet REAMIDE



We turn marine waste
into treasure.

We will not leave the marine waste problem to future generations.

There is 150 million tons of plastic waste discarded or washed into the sea around the world. In Japan, approximately 40% of ocean waste is fishing nets and other fishing gear. That is approximately 640,000 tons a year. This plastic waste is severely damaging the ecosystem. REFINVERSE will not ask future generations to deal with this problem. We came up with REAMIDE to solve this problem with our own strength.

20-fold

The amount of plastic produced around the world increased 20-fold over 50 years from 1964 to 2014. We expect this to double further over the next 20 years. *1

8,000,000 t

This is the amount of plastic waste which flows into the world's seas a year. Already, 150 million tons of plastic waste have flowed into the sea. *1 *2 *3

40%

In Japan, approximately 40% of the plastic waste discarded into the sea is comprised of fishing nets, buoys, ropes and other fishing gear. That is 640,000 tons a year. *4

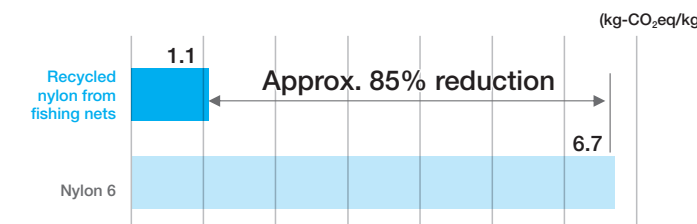


The process of making REAMIDE. What REAMIDE can do.

Nylon accounts for about 30% of the fishing net materials used in Japan. Those fishing nets are discarded once they have no more role to play. However, we collect them and give them new life as REAMIDE recycled nylon resin. We have created a way of doing this which has a low impact on the environment in the recycling process while maintaining high quality similar to virgin nylon. REFINVERSE is the only company in Japan which undertake this process from collection to recycling. We are working to spread awareness that using REAMIDE will make the sea cleaner in addition to upcycling discarded fishing nets into new products. We are striving to expand the range of our collection of fishing nets so that we can recycle even more of them.

CO₂ Emissions Comparison

Using REAMIDE emits far less CO₂ than using virgin raw materials.



○We have referenced the Sustainable Management Promotion Organization's Product Category Rules (PCR) (Certified PCR Number: PA-165000-BA-02) Product Category Rule for "Recycled Plastics material (Intermediate Goods)" for the calculation and declaration rules and system boundaries ○We have calculated the CO₂ emissions at each stage of the process with reference to IDEA v2.3 ○We have calculated the CO₂ emissions of virgin nylon based on survey results

*1 Neufeld, L., et al. "The new plastics economy: rethinking the future of plastics." World Economic Forum. 2016.

*2 Jambeck, Jenna R., et al. "Plastic waste inputs from land into the ocean." Science 347.6223 (2015)

*3 Conservancy, Ocean. "Stemming the tide: Land-based strategies for a plastic-free ocean." Ocean Conservancy and McKinsey Center for Business and Environment, 48pp (2015)

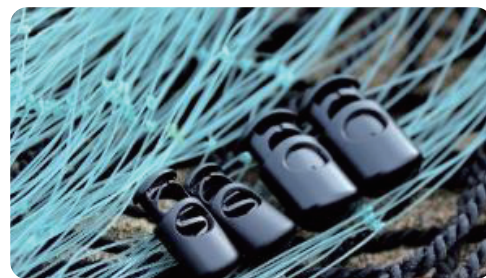
*4 Recent Trends in Marine Litter and Results of a Survey on Drifted Wastes in Japan (2018) by the Ministry of the Environment

The value of REAMIDE.

We have become a society in which the emotional benefits of being good for the environment far outweigh the prioritization of functional benefits such as convenience, cheapness and style. Using REAMIDE becomes the value of that brand or product. A great deal of value is created by that and that satisfies the lives and minds of people. That is the future we are aiming for at REFINVERSE.

This is REAMIDE.

MORITO APPAREL Co., Ltd. develops environment-friendly products. The company is using REAMIDE for the clothing parts of that. We are also collaborating with TOYOOKA KABAN to produce bags made with REAMIDE. REAMIDE is also already being used in products in our daily lives including automobiles and home appliances.



Waste to Wealth.

We turn things with no more role to play into new wealth.

REFINVERSE is a company which produces recycled plastic materials from used plastic waste. We carry out all processes in-house from waste collection to transportation and intermediate treatment. Our unique state-of-the-art technology has succeeded in transforming ocean waste and discarded airbags from unnecessary things into necessary resources. That technology is REAMIDE.

After they have no more role to play, products which enrich our lives produce once again new wealth and value through REAMIDE. We are aiming to create a recycling-oriented society like this.

Beyond sustainability.

We will realize a circular economy.

SDGs and sustainability have now become issues thought about by people around the world. However, REFINVERSE has been recycling resources and achieving results for 20 years.

Sustainability initiatives are not a “cost” to companies; rather, they are a means to produce new wealth.

We produce recycled materials to create products with value from the waste generated in the course of people’s lives.

We will realize a true circular economy with the products we produce starting with REAMIDE.



We support the Sustainable Development Goals (SDGs).

We transform airbags with no more role to play into REAMIDE.

About 3 million automobiles are scrapped a year.

That leads to approximately 2,000 tons* of airbags being discarded. We collect those airbags and transform them into REAMIDE recycled nylon resin.

REAMIDE allows airbags destined to be discarded to be upcycled into new products.

That contributes to a sustainable society.

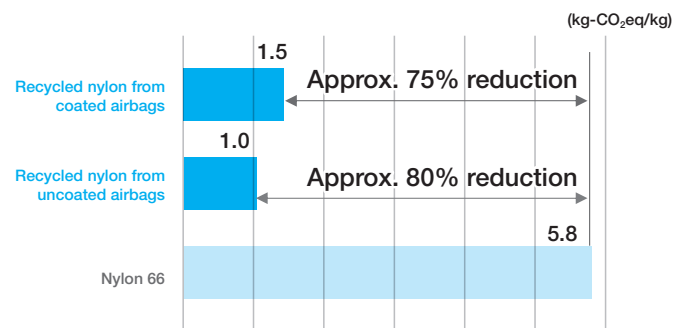
*According to our research

Transforming airbags into new materials with our unique advanced technology.

We collect and cut up discarded airbags. It is the process from here where REFINVERSE shows our true capabilities. We separate nylon from silicone with the advanced technology only we possess to recycle it into REAMIDE. We then turn this REAMIDE into materials which meet the requirements of each manufacturer. After that, those materials become various products and are then distributed throughout the world.

CO₂ Emissions Comparison

Using REAMIDE emits far less CO₂ than using virgin raw materials.



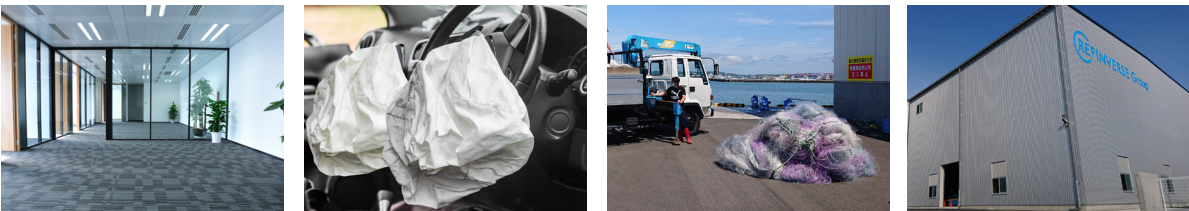
○We have referenced the Sustainable Management Promotion Organization's Product Category Rules (PCR) (Certified PCR Number: PA-165000-BA-02) Product Category Rule for "Recycled Plastics material (Intermediate Goods)" for the calculation and declaration rules and system boundaries ○We have calculated the CO₂ emissions at each stage of the process with reference to IDEA v2.3 ○We have calculated the CO₂ emissions of virgin nylon based on survey results

We are working on a new way of making things at low carbon with the aim of carbon neutrality.

We will transform into a carbon neutral society for the future of the planet. That is now an important issue shared by those around the world. However, REFINVERSE has already provided many recycled materials by establishing an energy-saving and low-carbon production process with the technologies we have independently developed. These recycled materials have been adopted in various products as materials which produce an overwhelmingly superior CO₂ reduction effect compared to petroleum-derived resins.

Green transformation (GX) will turn Japan into a resource-rich nation.

REFINVERSE is more than just a recycling company. Our unique technologies will allow the sustainable society to circulate. In other words, we are a company which produces positives (resources) from negatives (waste) through GX. Focusing on products including REAMIDE, we have teamed up with various partners to solve ocean waste, discarded airbag and other waste problems. Those efforts will make Japan a prosperous and revitalized country.



We are expanding the collection and usage applications of REAMIDE with the support of fishing ports and other partners all over Japan.

We have started a collaboration with Suzuki - Shokai Co., Ltd. to recycle discarded fishing nets into resources. This initiative is mainly taking place in Hokkaido where there is the largest fishery output in Japan. We will further expand collection and usage applications of REAMIDE in cooperation with partners based on our aim of realizing a true circular economy.

