

What Is Closed Loop Recycling?

With global warming and climate change some of the most urgent issues facing the human race, recent years have seen an increased emphasis on reducing our carbon footprint on the planet. Recycling is a key component of this process, since it generates less waste whilst simultaneously reducing the need for new materials, thus resulting in fewer emissions and less consumption of resources.

Closed loop recycling is viewed as particularly beneficial to the environment, since it fulfils both of the above requirements. In essence, it involves collecting, cleaning, recycling and reusing an old product to turn it into a new one. In theory, this means the same glass, plastic or other raw material can be used time and time again, thus creating the closed loop.

What are some examples of closed loop recycling?

Every time we repurpose a product to use it again, we are performing closed loop recycling in our own home. For instance, washing out an empty glass jar and using it to store ingredients, sauces or other liquids is a perfect example. However, the product does not need to perform the same function as it previously did, nor even take the same form as before.

In a more industrial setting, aluminium cans can be melted down and pressed into metal sheets, or else fashioned into items such as car parts or heating components. Similarly, plastic bottles can be destroyed and reformulated to create textiles, insulation or new plastic receptacles. That same glass jar from before could also be crushed and redesigned into something completely different.

Emirates leading by example

As one of the most respected aviation companies in the world, Emirates has prided itself on leading the way when it comes to sustainable practices. It's for this reason that the company has already removed plastic straws, drink stirrers and retail bags from its flights, instead replacing them with responsibly sourced wood and paper alternatives.

When it is absolutely necessary to use plastic, Emirates is committed to ensuring that it uses as high a percentage of recycled materials in its products as possible. Every blanket given out on a flight is constructed from 28 recycled bottles, saving almost 90 million bottles from landfill each year. Its plastic tumblers and hygiene covers are also made from 80% recycled plastic.

Closed loop at 10,000 feet

Now, the company is going one further by introducing its very own closed loop recycling scheme. From June of this year, millions of trays, bowls and dishes used on Emirates flights will be collected, sorted and washed, before being sent to a dedicated recycling plant on Emirati soil and ground down into microplastics. They will then be processed into new meal items to be used on forthcoming flights.

The recycling facility is located in Dubai and by processing the items – which have come to the end of their lives and would otherwise be sent to landfill – on home soil, significant carbon emissions can be mitigated. The plant also places an emphasis on using solar power, optimising water consumption and minimising the amount of waste and pollution it generates.