



The company has experimented with turning the material into everything from furniture to packaging | Photo source [Restore](#)

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CARBON-NEGATIVE STRAWS AND FORKS MADE FROM GREENHOUSE GASES

 FOOD & DRINK

A biotech company has developed a material that could simultaneously help tackle the challenges of climate change and ocean plastic

Spotted: The Californian biotech company Newlight is using microbes to turn methane, a potent greenhouse gas, into new material to make everything from utensils to purses and glasses.

The researchers were interested in ocean microorganisms that can consume methane and CO₂ as food. To replicate the process, Newlight installed a 50-foot-tall stainless steel tank in Huntington Beach, California filled with 15,000 gallons of saltwater and microbes, with air and methane added to start the process.

“We asked the question, how can we take carbon that would otherwise go into the air, and turn it into useful materials,” says [Mark Herrema](#), CEO of Newlight. “As we looked around nature, we discovered pretty quickly that nature uses greenhouse gas to make materials every day.”

The company has experimented with turning the material into everything from furniture to packaging. For the time being, however, they will focus on a replacement for single-use plastic such as straws and cutlery, since these are products that could have the most impact.

To tackle another problem, Newlight is launching a separate brand called Covalent, which is making wallets and handbags from its material instead of leather. The material will naturally break down over time if it happens to reach the ocean.

The products, already available for preorder, are stamped with a “carbon date” for consumers to trace how the carbon in that item moved through the production process.

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Takeaway:

Of the 260 million tons of plastic that the world produces every year, about 10 per cent ends up in the ocean, according to a Greenpeace report. Plastic pollution is more problematic than entanglement for marine life. Once plastic litter enters the water, it becomes one of the most pervasive problems because of its inherent properties: buoyancy, durability, ability to become fragmented in microscopic pieces, and leach toxins in the seawater. It’s hard to prevent plastic from reaching the ocean. However, perhaps in the future, this won’t be an issue if plastics are biodegradable.