



Potato Plastic

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BIODEGRADABLE MATERIAL IS MADE OF POTATO STARCH

 SUSTAINABILITY

A new biodegradable material made of potato starch can decompose to soil nutrients in only two months.

At Springwise, we have featured a number of this year's winners of the [James Dyson](#) award, an annual competition highlighting the work of designers and engineers from around the world who think differently. For example, one winner in Dublin created a new sustainable [concept shoe](#) that allows wearers to customise, repair and recycle their footwear. Another winner is a designer from Mexico who created a low-cost solar-powered [water purifier](#). Now, Pontus Törnqvist from Lund University, Sweden, has designed [Potato Plastic](#), a biodegradable material made of potato starch and water.

Pontus Törnqvist created Potato Plastic to address the wasteful product culture of the fast food industry. Potato Plastic takes only two months to decompose to nutrients for soil. Some uses for the material include making straws, cutlery and saltbags. "In order for us to maintain our lifestyles, we have to adapt to a more cyclic way of thinking. This material is made of what comes from our earth, and it can later on just as well end up in the soil without any risks for the nature," said Törnqvist. To create the product, Törnqvist firstly mixes a measured amount of potato starch and water together. The mixture is then thickened using heat and poured into moulds and dried. The resulting material is similar to a thermoplastic and can therefore be moulded under compression when exposed to heat and moisture.

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Takeaway:

Much of the plastic that circulates in our environment comes from the fast food industry. Potato Plastic offers an alternative to single-use plastics, with a biodegradable material for one-time use products. What other ingredients may be suitable for creating biodegradable plastic alternatives?