

Award-Winning Biodegradable Agar Packaging Could Replace Plastic

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The prototype agar packaging developed by a group of Japanese designers took top honors in the 2016 Lexus Design Awards.

by [Orion Rodriguez](#)

A group of designers from [Japan](#) have created a prototype design that could completely change the way we deal with product packaging. The design group, AMAM, calls their project Agar Plasticity, which explores the use of a [seaweed](#)-derived substance called [agar](#) as a biodegradable substitute for conventional plastic packaging. The group found that by boiling certain types of algae and dehydrating the resulting soup, it's possible to create a variety of shapes and textures that could replace plastic film or foam packaging. For example, the frozen solution takes on a soft, cushioning structure, and when it's compressed, it forms a plastic-like film.



Agar is traditionally used as a [food thickening agent](#) and vegan gelatin replacement, and in various applications throughout the medical and scientific fields. Not only is the source of this plastic material completely sustainable and [biodegradable](#), but when it breaks down in the environment, it can actually help improve surrounding soil by increasing its water retention properties.

Click here to watch “Lexus Design Award 2016 - Making "AGAR PLASTICITY"”:
<https://youtu.be/Oh2kkXldjG0>

This prototype material is so impressive, it walked away from [Lexus International's](#) fourth annual design competition with the top prize of 2016. The group's work beat out a whopping 1,232 entries from around the world and three other prototype finalists. Those finalists, along with AMAM, will have their work showcased April 12-17th at Milan Design Week at Lexus' public exhibition space.



The theme of this year's Lexus Design Award was “Anticipation,” and applicants were encouraged to submit designs that could adapt to the changing needs of people and society. The competition was first launched in 2013 — previous winners include this [innovative woven refugee tent](#) and the Ooho, an [edible water bottle](#) made from algae and calcium chloride.

You can visit [Lexus International's website](#) to learn more and see the other finalists featured in this week's exhibit.
