The popcorn-based insulation replaces the need for oil and mining | Photo source Karl Bachl GmbH & Co. KG



# WATER-REPELLANT BUILDING INSULATION MADE FROM POPCORN

SCIENCE

## The new product provides a direct replacement for petroleum-based materials

**Spotted**: Salty or sweet – popcorn is a snack loved by many. It may be tasty, but it's not exactly what you would think of for a building material. Yet this is exactly how scientists from Germany's University of Göttingen have used it. The team made an exterior building insulation material using granulated popcorn. The new insulation is efficient, water repellant, and provides good protection from fire.

Used as part of the exterior shell of a building, the popcorn-based insulation is of a quality equivalent to that of commonly used petroleum-based versions. As a sustainable material made from plants, not only does the popcorn insulation help reduce thermal waste, it also reduces carbon emissions.

The insulation will shortly be available commercially. Working closely with the Bachl Group, the University has agreed a licensing agreement for the product itself and the production process. With plastic insulation covering around 90 per cent of the global market, eco-friendly alternatives are desperately needed.

Plant power is being used in a range of exciting ways, from a cloud server running on tomatoes, to living roofs providing new means for achieving passive design – both of which have been spotted by Springwise.

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## Takeaway:

From cleaning the air to providing a variety of medicines, plants are important aspects of human and environmental health. As their benefits are studied and better understood, additional uses are found. With growing numbers of people and organisations attempting to live more harmoniously with nature, such closeness helps inspire innovations that mimic the structures and characteristics of plants. The results contribute to more sustainable products and processes, all of which are much needed and in vast quantities.