
Versarien's Graphene-enhanced Cement for 3D Printing Applications

2022-03-16

Graphene Flagship partner Versarien just unveiled the world's first 3D printed construction using graphene-enhanced cement.

[Graphene Flagship](#) partner [Versarien, UK](#), has announced the launch of its 3D-printed lifestyle pods, designed with sustainability and innovation at the core. Versarien specialises in advanced engineering materials, and provides graphene-enhanced concrete, trademarked as Cementene™.

Yesterday, Versarien's CEO Neill Ricketts unveiled the world's first building printed with Cementene™, at the company's production facilities in the [UK](#). This milestone project, dubbed "Versarien Lunar", is the world's first 3D-printed product with graphene-enhanced cement. It's a versatile garden space that can be used as an office, studio, gym or leisure room. Its unique wall design shows the level of detail, flexibility and precision that can be achieved with 3D-concrete printing.



"Versarien Lunar" pods are the world's first 3D-printed product with graphene-enhanced cement.

This launch comes at a time where sustainability in construction has become paramount. The industry accounts for around 8% of global CO2 emissions, which means it would rank third for emissions in the world if it were a country, overtaken only by the US and [China](#). Incorporating graphene into concrete allows engineers and architects to design structures that use fewer materials, while maintaining the same structural performance as ordinary concrete. This could result in faster completion of buildings, reducing costs and the carbon footprint.

Neill Ricketts, CEO of Graphene Flagship partner Versarien, comments: "This launch

represents the first application of a technology with the potential to change the way the world views construction and property renovation. Our 3D printed, graphene-enhanced concrete could build pods for those less fortunate, whilst creating a circular economy for houses, giving individuals in more developed countries the opportunity to chop and change and 'lift and shift' their homes. Versarien is driving this innovation and we look forward to seeing the impact this technology can have on the world around us."

Kari Hjelt, Head of Innovation of the Graphene Flagship, adds: "We have made huge efforts towards manufacturing graphene-enabled products that will make our future more sustainable. With graphene-enhanced concrete, we could reduce the carbon emissions of one of the most polluting industries today by making lighter products and reducing the amounts of materials used. And the 3D-printing ability is a great plus! We could take graphene-enhanced concrete houses virtually anywhere, providing a cheap-housing solution thanks to innovation and collaboration."

Read the [original article](#) on Graphene Flagship.