
Graphene Cement Enhancer Demonstrated in Large-scale Construction Project

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Graphenea Advanced Materials, Lantania, and Universidad Politécnica de Madrid have developed an innovative cement and concrete additive that significantly improves the durability and sustainability of concrete infrastructure.

After verifying its effectiveness in the laboratory, a test has been carried out on a non-structural element of the Almodóvar reservoir project. Graphene was added to the concrete, with a characteristic strength of 30 MPa, and its behaviour was evaluated on a real scale in terms of: in-plant mixing, fresh state behaviour, effect of the transport medium and discharge. The concrete was then subjected to mechanical behaviour and durability tests.

The main benefits of the additive are an increase in the expected life of concrete by 50%, improved resistance to harsh environments, and improved mechanical performance. The additive was designed with ease of use in mind, for application in large-scale construction projects.

"This new additive is undoubtedly a step forward in improving the sustainability of infrastructures. By increasing its durability, we will be able to make concrete a more environmentally friendly material," says Lantania's president, Federico Ávila.

Jesús de la Fuente, CEO of Graphenea, said: "We are very proud of the hard work of the joint team of Lantania, UPM and Graphenea that created this innovative additive. This is a breakthrough innovation for the sustainability and efficiency of infrastructure construction projects".

Read the [original article](#) on Graphenea Advanced Materials.

