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ANNOUNCEMENT

First successful large-scale European application of recycled plastic in asphalt pavements by the School of Civil Engineering of Aristotle University

Thessaloniki, 12/12/2025

The Highway Engineering Laboratory of the School of Civil Engineering at the School of Engineering of Aristotle University implemented an innovative research project on recycling plastic waste into asphalt mixes and road pavements, in collaboration with a major construction company.

On Tuesday, 25 November 2025, the construction company carried out a pilot project at one of its worksites, laying asphalt mixtures that contained recycled plastic replacing asphalt by 10% and 20%. According to the Laboratory's supervisors, the pioneering pilot application was completely successful and constitutes the first worksite application of introducing secondary recycled plastic into asphalt pavements on a pan-European scale, as well as the first worksite application of asphalt pavement with recycled plastic produced in Greece. They note that the ambitious effort to replace asphalt with recycled plastic at a rate of 20% is among the few worldwide that have been recorded as fully successful.

According to the supervisors of the Highway Engineering Laboratory, introducing recycled plastic into Road Engineering can offer a convincing response to the serious problem of managing plastic waste. Related research shows that using recycled plastic in beverage, food, pharmaceutical, and other everyday packaging is not completely safe. In contrast, road construction can serve as a sector capable of absorbing large quantities of plastic waste, ensuring that the positive environmental impact is combined with high construction quality.

The Scientific Director of the research is Honorary Professor Anastasios Mouratidis, and the Coordinator of research and scientific studies is Associate Professor Evangelos

Manthos of the School of Civil Engineering at Aristotle University. Specialized scientists from Aristotle University and the major construction company collaborated in conducting the research and applying the research results.

We kindly request that this event be published, broadcast, and covered by the media.

Attached are photographs from the project's execution.