

Press release

R&D to enhance safety on pedestrian paving

- The ultimate goal of the SEGURPAV project, promoted by four Basque companies, is to enhance safety on pedestrian paving
- IK4-TEKNIKER is participating in this initiative by developing new functional materials and test protocols

(Eibar, Basque Country. 24 September, 2019).- Every year, millions of people are treated at hospitals for falls caused by slipping that could be reduced by installing safer paving materials. To prevent these falls, there are currently anti-slip solutions available for ceramic, stony, wooden and concrete paving that increase surface roughness or texture as well as different types of surface treatments.

Significant increases in surface roughness, however, could accumulate even more dirt that interferes with cleaning and maintenance actions. Surface treatments, moreover, usually have a limited durability as they gradually fade over time and stop providing anti-slip functionality. Consequently, there are no long-lasting anti-slip solutions with low surface roughness currently available allowing cleaning to be performed under optimum conditions.

In order to address these challenges, the SEGURPAV project (set into motion by the consortium formed by Altuna y Uria, A&B Laboratorios de Biotecnología, Industrias Juno, Plásticos Tolosa and IK4-TEKNIKER), intends to increase personal safety by reducing the number of accidents caused by slipping on pavements, although without increasing surface roughness but providing greater durability.

IK4-TEKNIKER has contributed *know-how* to develop **new functional** materials, and has provided change-of-phase nanomaterials and materials on cement and paint-based surfaces.

New solutions are being developed for cement-based paving to make surfaces leas slippery and improve thermal properties by introducing change-of-phase materials and nanomaterials to increase conductivity and thermal storage for the purpose of enhancing energy efficiency.

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Work is also in progress to develop new water-based multi-functional paints and solvents to improve anti-slip characteristics of surfaces that are more hydrophobic and easier to clean thanks to the incorporation of nanomaterials.

The technology centre is also assisting in the development of test protocols to evaluate the properties and durability over time of the new floors and paint, as well as new cleaning products formulated within the framework of the project.

The project is also addressing the issue of developing new environmentally friendly cleansing solutions as well as highly durable anti-slip treatments featuring photocatalytic, anti-microbial-anti-static and brightness recovery properties.

Other key issues covered by the project are related to optimising paving installation processes and evaluating the deterioration or aging or floor surfaces.

The SEGURPAV project, therefore, is being addressed from a totally competitive perspective and is focused on developing new anti-slip paving that does not increase surface roughness that is multi-functional and more durable.

Concerning IK4-TEKNIKER

With more than 35 years of experience in applied technology research that has been be transferred to companies, IK4-TEKNIKER has achieved a high degree of specialisation in four major areas (Advanced Manufacturing, Surface Engineering, Product Engineering and ICTs). This means that its cutting edge know-how has been made available to customers to meet their requirements.

Further information

