

ecoGranic – The decontaminating pavement

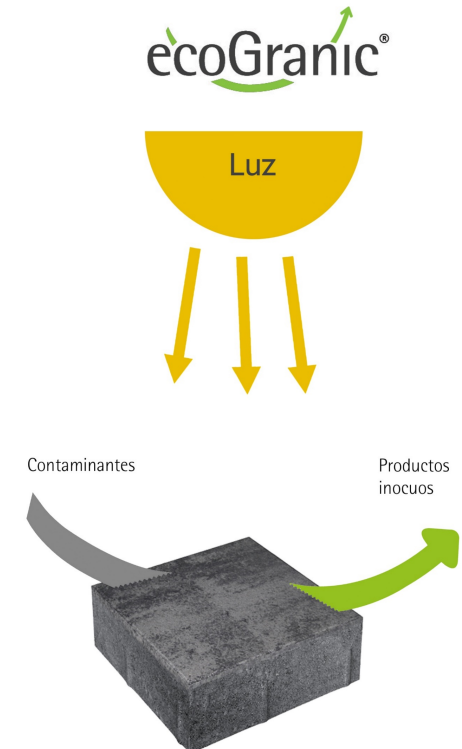
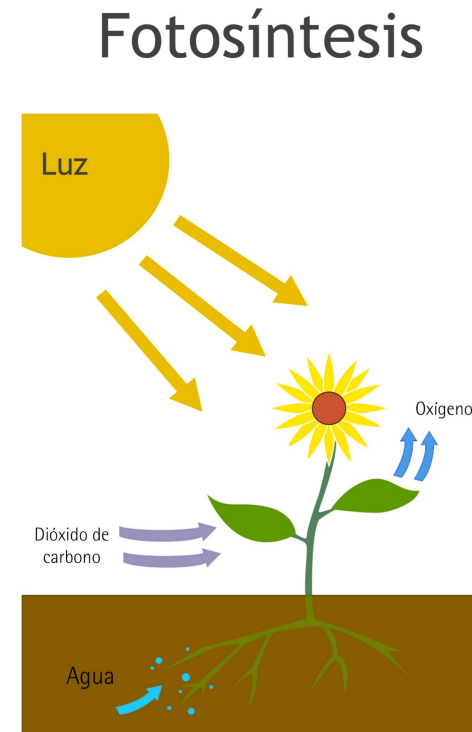
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Spain



Technology presentation

- EcoGranic is a technology developed and patented by PVT, implemented in a high resistance concrete prefabricated. In addition to compelling its architectural and esthetical function, it actively contributes to the elimination of atmospheric pollutants.
- EcoGranic combats pollution through a process similar to the photosynthesis of the plants. This technology is very efficient in the elimination of nitrogen oxides (NOx), volatile organic compounds (VOCs) and particulate matter (PM).
- This prefabricated product is environmentally friendly and sustainable. It is produced with recycled materials, among others, especially from construction and industrial sectors.



Multi layered structure

- EcoGranic is made in two layers. Attending to the composition and thickness of the surface layer, it guarantees a high decontaminating efficiency during more than 25 years, in spite of the usual abrasion processes.
- It turns damaging gases into harmless compounds for human health and environment, through a natural oxidation process, chemical agents free and with an endless effect in time.
- EcoGranic is the single product in the market that guarantees the maximum decontaminating efficiency (class 3) supported by the international certifying entity APPLUS.
- The product is internationally patented and has been certified by the accredited laboratory Applus. It has been presented in international building fairs in Europe and China.



Circular economy application

CE process	Description
Regenerate	Restoring natural capital: ecoremediation- reduction of atmosphere contaminants. ecoGranis is capable of reducing atmospheric pollutants, such as nitrogen oxides, volatile organic compounds and particulate matter in a 60 % in real conditions
Optimize	Prolonging the material's life: The efficiency has been certified and guarantees a high decontaminating efficiency during an unlimited life, in spite of the usual abrasion processes. As long as the slabs are made in two layer, there is a decontaminating layer during the whole life of the pavement.
Loop	recycling materials: the use of a up to a 30 % of recycled materials. These recycled materials come from different industrial sectors, including the wastes produced in our own facilities.

Objectives and results achieved

Circular construction	Description
Objectives	Reduce atmospheric pollution of urban areas.
Results	<p>In-situ studies have been carried out in finished works, to analyze the efficiency of ecoGranic reducing pollutants in real conditions</p> <p>Since the first study, realized in the year 2009, hundreds of measurements have confirmed a mean reduction about 60 % in NOx levels.</p> <p>The repetition of this tests in the works after more than 5 years, have shown the maintenance of the decontaminating function.</p> <p>Another study was performed in Shenzhen (China) to test the efficiency od degradation of Particulate Mater (PM) in real conditions, and the results obtained shown a 63 % of degradation.</p>

Options for exploitation and internationalization

The product can be transported and sold in any country where a commercial agreement is achieved. Technological transference of the production system to a partner specialized in the manufacturing of concrete prefabricates.

ecoGranic video presentation

A video of 6 min about our product can download it from in the next link:

<https://drive.google.com/file/d/0B99pCRtJfaHLOV9GcmdMTUJrYkk/view>



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