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Title

ECO-INNOVATIVE ROAD CONCRETE BASED ON CEMENT, GLASS POWDER AND AGGREGATE FROM RECYCLED CONCRETE WASTE FOR CONSTRUCTION APPLICATIONS “BcRG”

Inventor/s - Contact

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Patent/ Application number

Patent application OSIM no.: A/00618/10.10.2022

Short presentation

The invention refers to a new eco-innovative and sustainable "BcR_G" Road Concrete based on high quality Portland cement with recycled waste from: 1) uncontaminated concrete in the form of alternative aggregate successfully replacing non-renewable natural aggregates, derived from the recycling of concrete waste, collected, sorted, washed, ground/sorted into 4/8 mm particle size fractions and 2) glass in the form of under-100 μm powder, as a secondary raw material (1.39÷2.8)% of the cement quantity, solving an environmental pollution problem by reducing landfill waste and the exploitation of natural aggregate, with various applications in the field of construction, i.e. infrastructure, roads, platforms, pavements, etc. , becoming a composite material with high abbrasion resistance and high mechanical strength, for improving the quality of life through sustainable design.

Applicability

Application in the construction field with applicability for roads, sidewalks, alleys, urban furniture

Images

Glass waste transformed into PFS< 100 μm

Concrete waste transformed into Recycled Aggregates